

ENVIRONMENTAL TECHNICAL SERVICES

1548 Jacob Ave., San Jose, CA 95118 cell: 831 236-9221 fax: 831 855-0246 hmawhinneyets@aol.com

OPERATIONS MAINTENANCE PLAN 2011-2012

Prepared for:

**LEVIN RICHMOND TERMINAL
402 WRIGHT AVENUE
RICHMOND, CALIFORNIA**

Prepared By:

*Environmental Technical Services
1548 Jacob Avenue
San Jose, California*

Updated: February 21, 2013

LEVIN RICHMOND TERMINAL CORPORATION

402 Wright Avenue
Richmond, CA 94804
Phone: (510) 232-4422
Fax (510) 236-0129

REFERENCE: Levin Richmond Terminal Corporation
402 Wright Avenue
Richmond, CA 94804
Facility WDID No: 2 071002394

February 21, 2013

I, Gary Levin, certify that Environmental Technical Services (ETS) is an authorized representative of the Levin Richmond Terminal Corporation (LRTC), and performs oversight of the Stormwater Program including reporting. I certify under penalty of law that this document, "Operations and Maintenance Plan 2011-2012" and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or the persons directly responsible for gathering the information, the information submitted is to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations.


Gary M. Levin, CEO
Levin Richmond Terminal Corp.
Attorney at Law


Date:

ENVIRONMENTAL TECHNICAL SERVICES

1548 Jacob Ave., San Jose, CA 95118 cell: 831-236-9221 fax: 831-883-8490 hmawhinneyets@aol.com

February 21, 2013

Levin Richmond Terminal
402 Wright Avenue
Richmond, CA 94804
Attn: Gary M. Levin

REFERENCE: Levin Richmond Terminal Co.
402 Wright Avenue
Richmond, CA 94804
Facility WOID No: 2 071002394

CERTIFICATION STATEMENT

"I certify under penalty of law that this document, the Levin Richmond Terminal *Operations and Maintenance Plan 2011-2012*, and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

I have reviewed the report and as an authorized representative of the Levin Richmond Terminal Corporation "I declare that under perjury the information and/or recommendations contained in the attached report is true and correct to the best of my knowledge."


Helen Mawhinney
Environmental Technical Services
Sr. Environmental Specialist

2-25-13
Date

Table of Contents

1.0	INTRODUCTION	1
1.1	Background.....	1
1.2	Current Site Use	1
2.0	CAP AND STORMWATER INTERCEPTORS	2
2.1	Description of Capping System.....	2
2.2	Inspection of Cap	2
2.3	Inspection of Drop Inlets and Interceptors	3
3.0	STORMWATER FROM INTERCEPTORS SW-3 THROUGH SW-7.....	3
4.0	BETTER BUSINESS PRACTICES / GOOD HOUSEKEEPING.....	4
4.1	Significant Materials.....	4
4.2	California Standard for Non-Road Engines, Emissions Reduction	5
4.3	Dust and Particulate Generating Activities.....	5
4.4	Pollution Prevention Materials	5
4.5	Interceptor Improvements	6
4.6	General Maintenance and Stormwater Improvements.....	7
4.7	Training.....	7
4.8	Marine Spill Emergency Response.....	9
4.9	Inspections.....	9
5.0	STORMWATER SYSTEMS, CLEANING EVENTS	9
6.0	STORMWATER SYSTEMS, SAMPLE COLLECTION AND ANALYSES	10
6.2	Analyses	11
7.0	SUMMARY.....	12
	Table I, LRTC Stormwater Pollution Prevention and Response Team Personnel:	15
	Table II - Significant Materials Locations And Quantities	16
	Table III - Significant Materials Best Management Practices (BMPs)	17
	Table III - continued	18
	ACRONYMS	19

1.0 INTRODUCTION

This document is prepared for submittal to the United States Environmental Protection Agency (U.S. EPA), Hazardous Waste Management Division. Levin-Richmond Terminal Corporation (LRTC), in compliance with the State of California General Stormwater Permit for Discharges of Storm Water Associated with Industrial Activities (General Permit), has performed activities that are included in its Stormwater Monitoring Plan (SWMP). The SWMP also provides the basis for the evaluation of compliance with the General Permit and Stormwater Pollution Prevention Plan (SWPPP). The combination of the SWMP and the SWPPP comprise the stormwater monitoring and pollution prevention plans for the entire 40-acre site and the facilities owned and operated by LRTC.

As required by the U.S. EPA Consent Decree, dated April 22, 1996 and the completed Upland Cap Installation, Former United Heckathorn Facility, Richmond, California, the Operations and Maintenance Plan (O & M Plan) describes the procedures for the long-term management of the upland capping system at the 4.5-acre Heckathorn NPL Site. The results of inspections, monitoring, and maintenance of the cap and drainage system are documented within this Annual Report. The upland remedy implemented by LRTC and Levin Enterprises Inc. was approved on September 30, 1999. There were no activities to report for the period ending June 2001 and LRTC began annual reporting for its fiscal year commencing July 1, 2001 through June 30, 2002. Submittal of Annual Reports is made for the reporting periods ending June 30 of each year. All referenced reports and documents are available at LRTC and are available to the U.S. EPA and its contractors upon request.

This document presents the June 2012 summary of recent inspection and maintenance by LRTC of the cap and associated stormwater interceptors.

1.1 Background

Environmental Technical Services (ETS) prepared and caused to be filed, on behalf of LRTC, the 2011-2012 Annual Report for Stormwater Discharges Associated with Industrial Activities, for the period ending June 2012. During the 2011 – 2012 reporting period no significant changes have been made to the Heckathorn NPL Site, including but not limited to material processes, capping, interceptors, and site construction. Site observations, monitoring, and “Good Housekeeping Practices” are performed on a regular basis.

1.2 Current Site Use

LRTC operates a dry bulk marine terminal, encompassing approximately twenty-two acres of land. LRTC accepts bulk cargo from vessels, railcars, and trucks. Some of the bulk cargo, such as iron ore, coal, and petroleum coke, is stockpiled onsite and then loaded into vessels, railcars, and trucks. Other materials are unloaded from vessels to

rail cars and trucks. Steel scrap is loaded directly from dump trucks to vessels and is not stored onsite.

The United Heckathorn Facility was formerly located in the northern portion of the terminal property (Attachment A, pages 2 of 6 and 3 of 6) which is currently used for both the temporary storage of dry bulk materials (petroleum coke and iron ore); non-polluting equipment; and materials used in daily operations of the terminal (i.e., ramps, barricades, containers, jack walls, and k-rails). As described above, the entire northern portion is capped except for rail beds, landscaped areas, and the rock slopes to the Lauritzen Canal.

2.0 CAP AND STORMWATER INTERCEPTORS

2.1 Description of Capping System

Concrete Cap

The concrete cap is located in the upland area of the former United Heckathorn Facility. The concrete cap consists of a minimum of six inches of concrete aggregates with reinforcing steel wire. The reinforcing steel consists of a double layer of 6' by 6' W4.5" X W4.5" steel-welded wire fabric (WWF). In some areas the cap overlies asphalt. In other areas where asphalt does not exist, the concrete cap consist of a double layer of 4' X 4' W4.5" X W4.5" WWF overlaying a compacted base. In these areas the sub-grade was prepared and compacted according to the specification approved by the U.S. EPA.

Geotextile Fabric and Gravel Cover

Some areas of the upland cap adjacent to railroad tracks and switches, where the storage and handling of bulk materials does not occur, were covered with a geotextile fabric and gravel. These areas consist of soils potentially containing pesticides. The geotextile membrane and six-inches of clean imported gravel cover these soils.

Stormwater Collection within Interceptors SW-3 through SW-7

The cap contains a stormwater collection system with five large interceptors (retention basins) engineered and constructed according to the specification approved by the U.S. EPA. The interceptors are identified as SW-3 through SW-7.

2.2 Inspection of Cap

The concrete cap was inspected by John Peterson for Buster Building, General Contractor, License No. 513203 C8 (concrete) on May 24, 2012 and found to be intact and in good condition. Also, the cap was inspected quarterly by Environmental Technical Services (ETS) while performing stormwater and "Good Housekeeping" observations. The cap was found to be uncompromised with only occasional surface

"feather" cracks typical of those which develop subsequent to the curing of freshly poured concrete. The cracks are insignificant and not indicative of stress fractures. These surface cracks are too small to repair. Refer to Attachment B for the Buster Building, Report of Cap Inspection, May 24, 2012.

2.3 Inspection of Drop Inlets and Interceptors

LRTC's staff and Environmental Technical Services (ETS) perform site observations. ETS has been retained to perform random and monthly site inspections and to advise LRTC as to effective pollution prevention improvements. A pollution absorbent/prevention materials expert and vendor performs site inspections during the wet season to evaluate the condition and placement of absorbent snakes, socks, pads, and fabrics.

Visual observations of stormwater runoff and stormwater systems are performed on an as-needed basis during and after: shipping activities; periods of significant rainfall; and during dry and wet seasons. Work areas and surface conditions are inspected on a daily basis and the site is cleaned using LRTC's power vacuum and sweepers as part of LRTC's routine housekeeping. Site surfaces are kept clean to ensure that sediment and contaminants do not enter nearby surface waters.

LRTC's Stormwater Pollution Prevention Plan includes the inspection and documentation of drop inlet and interceptor conditions each quarter, each dry season, and annually. Monthly inspections are required during the wet season. LRTC and ETS have elected to document all inspection results on a monthly basis. The results are included in the Annual Report for Stormwater Discharges Associated with Industrial Activities.

3.0 STORMWATER FROM INTERCEPTORS SW-3 THROUGH SW-7

A storm drain system was installed in 1998 to collect drainage from the northern portion of the main terminal parcel as part of the final remedy for the United Heckathorn Superfund site. Twenty-seven catch basins collect stormwater and direct it into one of five interceptors (SW-3 through SW-7). Stormwater interceptors SW-3 through SW-7 were constructed with compartments and steel baffles to allow the settling of sediments onto the chamber floor and separation of oil/grease and floatables, thereby decreasing the outflow of sediments, oil and grease into the Lauritzen Channel.

Interceptors SW-3 through SW-7 were constructed with a capacity to hold runoff generated during stormwater events. Water held in the interceptors allows most sediment to drop out prior to discharge. In light rainfall the interceptors contain all collected water. These systems are visually monitored, sampled, drained, emptied of all sediment, and pressure-washed as necessary to significantly reduce outflow into the Lauritzen Channel and ensure capacity in anticipation of the next storm event. Should heavy rainfall occur generating discharge, a stormwater outflow sample is collected.

A concrete below-ground pit at the South Parr Canal parcel is used for drying materials removed from stormwater interceptors during cleanout. Most material is returned to the material stockpiles with small quantities sampled and disposed of according to regulations. Stormwater is returned to material stockpiles or tested and disposed of in the City of Richmond's sanitary sewer system according to LRTC's Industrial Stormwater, Wastewater Discharge Permit.

In addition to sampling consistent with the General Permit, LRTC conducts additional sampling of the stormwater outflow to comply with EPA requirements for the Heckathorn site. This additional sampling data is reported in the OMP for submittal to the EPA, but is not included as part of the SWPPP.

Stormwater pollution prevention materials are used, as needed, within and around catch basins and interceptors SW-3 through SW-7.

Interceptor SW-7 has a shutoff valve and discharge into the Lauritzen Canal eliminated.

4.0 BETTER BUSINESS PRACTICES / GOOD HOUSEKEEPING

Levin Richmond Terminal Corporation continues to work closely with Environmental Technical Services to improve and upgrade each site process that could adversely impact the environment. Improvements include, but are not limited to, the following:

LRTC continually reviews its operations in order to improve "Best Management Practices" and stormwater pollution prevention measures.

Primary pollution prevention measures include the sweeping of the facility during business hours using vacuum power and manual sweeping as necessary; the regular replacement of stormwater pollution prevention materials such as wattles; DrainGuard® Catch Basin Inserts; absorbent snakes; pillows, diapers, and Extech® fabric at each catch basin and interceptor; the use of additional absorbent pads within each interceptor during rainfall; routine site inspections; returning migrated sediment to adjacent stockpiles, spraying collected stormwater onto stockpiles for dust control; site sealing of stormwater system's inlets during the dry season; the continual upgrade of stormwater systems, and training in pollution prevention.

4.1 Significant Materials

LRTC's activities currently include the handling and storage of dry bulk materials, including: iron ore; steel scrap; coal; aggregates, and petroleum coke. The dry bulk cargo is either directly loaded into vessels or stockpiled onsite and loaded onto vessels, or unloaded from vessels to rail cars and trucks. The stockpiles are bermed, using ten-foot high concrete or steel jackwalls or stacked empty shipping containers. These serve the dual purpose of acting as a wind barrier and preventing material migration. Subsequent to jackwall placement, fork pockets, used for their repositioning, are sealed with gaskets. Dry bulk material stockpiles such as iron ore, coal and green coke are

sealed using Soil-Sement or Haul Road as needed. Calcined coke is stored in the Bulk Materials Storage Warehouse or outside covered with plastic tarps and secured with heavy bags. Uncovered storage of stockpiles is permitted by the Bay Area Air Quality Management District.

Chemical Significant Materials are related to the maintenance, repair, and fueling of vehicles and materials handling equipment. Refer to Table II for Significant Materials Locations and Quantities. Chemicals are stored in enclosed covered areas and transported in spill-resistant containers, using double containment tubs, drip pans, and pollution prevention materials as needed to eliminate drips, spills, and leaks. Refer to Table III for Significant Materials - Best Management Practices (BMPs).

4.2 California Standard for Non-Road Engines, Emissions Reduction

In 2008, LRTC implemented a policy that all vehicles and equipment purchased will be compliant with Federal Standards (Tier 3 or better) for Non-road Engines.

4.3 Dust and Particulate Generating Activities

Dust and particulates can be generated during the loading and unloading of stockpiled dry bulk materials. All of the stockpiles are misted with water as needed to decrease airborne particulates. Stormwater within the interceptors is sometimes sprayed onto material stockpiles and roadways for dust control. Stockpiles may also be covered with tarps or sealed using Soil-Sement or Haul Road. LRTC is replacing and/or renovating older conveyors with covered conveyor systems.

4.4 Pollution Prevention Materials

Stormwater pollution prevention materials are placed, as needed, within SW-3 through SW-7 catch basins and interceptors to reduce the quantities of suspended sediment and oily runoff from entering the bay. These include: Straw bales/wattles; DrainGuard Inserts; Absorbent snakes; Pillows; Diapers; UltraGuard Socks; and Extech Fabric. Drain inlets are sealed using straw bales/wattles, absorbent fabric. Each absorbent type is closely monitored and replaced as needed.

As part of LRTC's continuous improvement of BMPs, the selection, use and placement of absorbent materials is continuously evaluated and improved for maximum effectiveness.

Emergency spill response stations have been placed strategically at areas where potential contaminants are used or stored. Cleanup materials are located near each work area. Ample supplies of absorbent booms are stored at LRTC.

Exposed soil and ties beneath locomotive "parking stations" have been covered with "Trackmat," a fabric barrier, prescribed and provided by American Textiles. This material is scheduled for routine replacement.

The pollution prevention materials used are as follows;

- Straw bales/wattles placed around drain entry where traffic allows.
- Oil absorbent socks placed inside and outside of straw bales and drain entry as needed.
- Absorbent diapers placed within storm drains where impact by petroleum hydrocarbons is possible.
- DrainGuard catch basin insert funnel placed at drain entry with an absorbent pillow inside where possible.
- UltraGuard socks attached to each drain outflow pipe where possible. The socks are constructed using a sediment proof fabric to capture suspended solids. Captured solids are removed as needed.
- Trackmats Hydrocarbon absorbent trackmats placed in areas of railroad locomotive parking.
- Geotextile filter fabric bags filled with gravel placed to surround pollution prevention materials on and around the drain inlets as needed. They are easily removed for cleaning and assist in filtering out sediment before stormwater enters the other pollution prevention materials.

The monitoring and upgrading of stormwater systems is ongoing. The monitoring of stormwater systems includes the inspection of the cap, drain inlets, interceptors, stormwater lines, sample collection, and the review of analytical results. The upgrading of systems includes, but is not limited to: the improvement of primary stormwater interceptors and secondary sediment basins; sealing drain inlets during work activities; adding new pollution prevention materials; building concrete berms to control stormwater runoff; placing UltraGuard Socks on stormwater outflows; installing gate valves on stormwater outflows; constructing sampling and maintenance platforms; shot-creting areas of exposed soil; cleaning stormwater lines and drain inlets; and increasing the schedule of emptying and cleaning the stormwater interceptors.

4.5 Interceptor Improvements

SW-3 through SW-7

These interceptors are scheduled to be emptied and cleaned several times throughout the year as part of LRTC's SWPPP. Also, the interceptors are emptied on an-as-

needed-basis to minimize stormwater discharge into the bay. Should rainfall generate discharge stormwater samples are collected from the discharging systems.

Composite water samples were collected from interceptors SW-3 through SW-7 for the purpose of emptying and cleaning each interceptor. Laboratory analytical results were presented to the City of Richmond Waste Water Division, Pretreatment Program, and the interceptor's collected stormwater was emptied into the city's sanitary sewer under LRTC's City Industrial Discharge Permit or recycled back onto the stockpiles by spraying.

All basins and the primary interceptors associated with stormwater systems SW-3 through SW-7 were emptied and cleaned multiple times during the 2011–2012 reporting year.

SW-7 interceptor had a one-way tidal valve allowing stormwater within the interceptor to outflow, while preventing the Lauritzen Channel's surface water from inflowing during high tide. The backflow valve was removed in January 2010 and replaced with a manual shutoff valve. The valve is always in the off position.

Absorbents were routinely replaced within each system's inlet(s). Pollution prevention materials remained in place throughout the year.

4.6 General Maintenance and Stormwater Improvements

LRTC various stormwater pollution prevention and site improvements include: increased draining and cleaning of stormwater interceptors; construction of a stormwater system with concrete vaults containing oil water separators and median filtration systems and/or stormwater pollution prevention materials; regular inspection of stormwater systems; cleaning of storm drain inlets and associated lines; capturing runoff from stockpiled bulk materials for recycling back onto the piles by spraying; constructing a box to contain pollution prevention materials in the a stormwater outflow pipe; placing shutoff valves on outflow pipes; and continued training.

4.7 Training

LRTC is committed to maintaining a high level of staff competence and readiness as it relates to stormwater pollution prevention and monitoring. To support this goal, LRTC conducts periodic training of personnel such as: regular operations meetings, tail gate meetings, in-field training, and training provided by outside sources that are designed and delivered by environmental management subject matter experts.

Employee training includes, but is not limited to, the following:

- OSHA Hazardous Materials Standard
- Recognizing Hazardous Materials
- Hazardous Materials Basics, Terms, and Definitions

Hazardous Communications (HMIS, NFPA, MSDS's, DOT and ERG)
Decontamination Toxicology, PPE
Confined Space Entry
Department Of Transportation Exercises
Spill Control, Containment, and Clean-Up
Emergency Procedures, And ICS

Spill Response Training includes, but is not limited to, the following:

Site Safety
Initial Response and Assessment Actions
Boom Design and Strategy
Maritime Security Concerns
Oil Spill Simulations
Skimmer Design and Strategy
Alternate Response Options
Oiled Wildlife Cautions
Shoreline Clean-Up Assessments (SCAT)
Decontamination
Spill Impacts and Cost Concerns
Survey of Response Equipment Staging Area
Initial Response Strategies
Site Protection Strategy Deployment

ETS conducted an onsite pollution prevention course in June and September 2012.
Pollution prevention training included but was not limited to the following:

NPDES Permit
Industrial Discharge Permit
Notice of Intent
Regulations, Regulatory Oversight and Compliance
LRTC Potential Primary Pollutants
Illicit Discharge Detection and Elimination
Site Runoff
Best Management Practices (BMPs)
Chemical Storage, Transfer, Use,
Equipment, Machinery, and Vehicles (BMPs)
Pollution Prevention Materials
Dust Control, Bulk Stockpiled Material
Storm Drain Systems
Yard Sweepings
Spill Response (Leaks, Drips, Spills)
Observations Form/Visual Assessment
Qualifying Storm Event
Laboratory Certified Clean Bottles
Sample Collection

Quality Assurance/Quality Control (QA/QC)
Sample Labeling
Chain of Custody
Sample Storage and Transfer

ETS trained LRTC stormwater-team members, from both the day and night shift, in the standard operating procedures for stormwater sample collection.

Elements of the pollution prevention, sampling procedures, and spill response courses are included in periodic tailgate meetings.

4.8 Marine Spill Emergency Response

LRTC has a written contract with NRC Environmental, an emergency response contractor, to immediately respond to an LRTC marine spill, should one occur. NRC Environmental provides 24-hour emergency response on both land and water. This contract includes providing emergency response vessels, personnel, absorbent consumables, and Coast Guard-approved oil containment booms.

The Coast Guard Marine Safety Office (MSO) requires each visiting cargo vessel to have an existing emergency response contract with an Oil Spill Response Organization (OSRO) prior to the Coast Guard allowing entry into US Ports.

4.9 Inspections

Regular inspections of all working stockpiles, mobile equipment, and conveying equipment are conducted by LRTC's supervisors and employees for containment and cleanliness to eliminate the buildup of material on jack walls, k-rail, equipment, roadways, and surfaces.

LRTC staff and/or Environmental Technical Services (ETS) perform site observations. ETS has been retained to perform site inspections randomly and to advise LRTC as to effective pollution prevention improvements.

5.0 STORMWATER SYSTEMS, CLEANING EVENTS

A composite sample was collected from interceptors SW-1 through SW-7 on October 5 and November 29, 2011, and on January 25, 2012. A composite sample was collected from SW-2 through SW-7 on November 2, 2011 and March 29, 2012. A composite sample was collected from SW-1 and SW-3 on April 5, 2012.

Plans for the annual cleaning of five stormwater interceptors were developed by LRTC's personnel with Environmental Technical Services in June 2003. Storm drain cleaning was increased to several times throughout the year beginning in June 2005 and remains an active part of LRTC's SWPPP. The interceptors are emptied on an-as-needed-basis to minimize stormwater discharge to the Bay. A stormwater discharge

permit was obtained from the City of Richmond's Waste Water Treatment Program to empty interceptor water into the sanitary sewer.

Prior to interceptor cleanout laboratory analytical results were presented to the City of Richmond Waste Water Division, Pretreatment Program, to determine whether the water removed from the stormwater interceptors could be discharged into the sanitary sewer. The City of Richmond inspected the storm drains and sanitary sewer, and discharge was approved under LRTC's Industrial Discharge Permit. The Waste Water Division was notified 48-hours prior to each project start to allow for city inspection.

LRTC's personnel emptied and cleaned the interceptors under a site-specific Health and Safety Plan. LRTC pumped water from the interceptors utilizing a specially equipped water truck. Water was discharged from the water truck directly into the sanitary sewer. Sediment was removed from the interceptors using stormwater to liquefy the sediment, which was then pumped into the vacuum trailer or water truck and recycled back onto the stockpiles from which it was generated. Subsequent to emptying, each interceptor's floor and sidewalls were pressure-washed. This process was repeated until all sediment had been removed and the cleaning of each interceptor complete.

6.0 STORMWATER SYSTEMS, SAMPLE COLLECTION AND ANALYSES

6.1 Sample Collection

Stormwater samples are collected using a groundwater monitoring pump (GMP) to collect samples within the stormwater interceptors or by placing sample containers below the outflow pipe during discharge.

Three discrete, 40-ml, Volatile Organics Analysis bottles were filled from each interceptor to be composited by a State certified analytical laboratory as one sample for analysis. Stormwater samples for all other analyses were composited during field sampling. This was accomplished by collecting equal amounts of water from each interceptor within a laboratory supplied clean 2.5 gallon Teflon container. Upon completion this water was then decanted into sample bottles. Certified clean, properly preserved bottles were supplied by a state certified analytical laboratory.

Each sample bottle was labeled with LRTC as the project name, stormwater system identification number, sampler's name, date, time and preservative. The samples were placed within a cooler on ice, and transported to a certified laboratory, under chain of custody, within the sample's holding time.

6.2 Analyses

The following stormwater samples included systems SW-3; SW-4; SW-5; SW-6; or SW-7:

Date	Description	Analyses Performed
10/5/2011	Composite Sample SW-1 through SW-7	1
11/29/2011	Composite Sample SW-1 through SW-7	1
1/25/2012	Composite Sample SW1 – SW-7	1
3/29/2012	Composite Sample SW-2, SW-4, SW-5, SW-6, SW-7	1
4/5/2012	Composite Sample SW-1 and SW-3	1
1/20/2012	SW-1, SW-2, SW-3, SW-4, SW-5, SW-6 SO PARR SW-11, NO PARR SW-12	2
2/7/2012	SW-2, SW-4, SW-5, SW-6	2
3/14/2012	SW-1, SW-2, SW-3, SW-4, SW-5, SW-6 SO PARR SW-11, NO PARR SW-12	2
3/14/2012	SW-7	3
10/27/2012	SW-7 INFLOW	3
1/25/2012	SW-1 THROUGH SW-7 COMPOSITE	3

1. Discharge: Samples were analyzed for oil and grease (O&G, using EPA Method 1664); benzene, toluene, ethylbenzene, total xylenes, (BTEX, using EPA Method 8021); Specific Conductivity (SC, using EPA Method SM2510B); pH (using EPA Method SM4500H+B); copper, lead, nickel, and zinc (Cu, Pb, Ni, Zn, using EPA Method 200.8) total suspended solids (TSS, using Standard Method E160.2 or SM2540D); and/or biological oxygen demand (BOD, using Standard Method SM5210B).
2. Annual: Samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg, using EPA Method 5030/8260; benzene, toluene, ethylbenzene, total xylenes, methyl tert-butyl ether (BTEX, MtBE, using EPA Method 8260); total petroleum hydrocarbons as diesel (TPHd, using EPA Method (3510/8015); total petroleum hydrocarbons (motor oil, using EPA Method 3510/8015); oil and grease (O&G, using EPA Method 1664); Specific Conductivity (using EPA Method 120.1); chemical oxygen demand (using SM5220D); pesticides (using EPA Method 3510/8081); pH (using Standard Method SM18-4500 or Hydac Meter); total suspended solids (TSS, using Standard Method SM18-2540D); aluminum, copper, lead, iron, vanadium, and/or zinc (using Method 6010B; 200.7; 200.8).
3. Other: Samples were analyzed for pesticides (using EPA Method 3510/8081 or 608); total dissolved solids (TDS, using Standard Method SM2540S); Specific Conductivity

(using Standard Method 2510B); Alkali Metals, using EPA Method 300.1 and 200.7; total petroleum hydrocarbons as gasoline (TPHg, using EPA Method 5030/8260; benzene, toluene, ethylbenzene, total xylenes, methyl tert-butyl ether; copper, lead, vanadium and zinc (Cu, Pb, Vn, Zn, using EPA Method 200.8) (BTEX, MtBE, using EPA Method 8260); total organic compounds (TOC, using EPA Method E415.3; chemical oxygen demand (COD, using Standard Method 5220D); total extractable petroleum hydrocarbons (TEPH, using EPA Method SW8015); and/or total suspended solids (TSS, using Standard Method SM18-2540D);

Discharge Samples

A composite sample was collected from non-discharging interceptors SW-1 through SW-7 and analyzed for the purpose of emptying and cleaning out the stormwater systems then discharging captured water into the municipal sanitary sewer on: October 5, 2011; November 29, 2011; and January 25, 2012.

A composite sample was collected from non-discharging interceptors SW-2; SW-4, SW-5, SW-6, SW-7 and analyzed for the purpose of emptying and cleaning out the stormwater systems then discharging captured water into the municipal sanitary sewer on March 29, 2012.

A composite sample was collected from non-discharging interceptors SW-1 and SW-3 and analyzed for the purpose of emptying and cleaning out the stormwater systems then discharging captured water into the municipal sanitary sewer on April 5, 2012.

Analytical results are summarized in Attachment C, Tables of Analytical Results.

7.0 SUMMARY

NRC Environmental Services was retained by LRTC to clean all drain inlets and lines associated with stormwater systems SW-3 through SW-7. Cleaning was performed on October 4, 5, and 19, 2011, and accomplished using a hot pressure washer. Captured wastewater was transferred into a water truck and carried to LRTC's drying bed where it was allowed to evaporate. Collected sludge was placed in DOT 55-gallon drums, sampled, analyzed; then transferred to qualified landfills.

NRC encountered concrete debris within the SW-7 stormwater line during the cleanout of drain inlet 7DI-17. Darrah's Trucking, a General Contractor, removed the concrete under a Health and Safety Plan by inserting a threaded bolt into the concrete, attaching a tow line to the bolt and using a backhoe to pull the concrete out. Rotorooter was retained on October 13, 2011 to perform a camera inspection of the line. They confirmed the concrete was removed and the integrity of the line intact.

A shutoff valve was placed on the outflow of SW-7 in July 2011. On October 27, 2011 while performing site inspections ETS noted water flowing into the SW-7 interceptor through the outflow pipe. The shutoff valve was in the closed position. Interceptor SW-7

was constructed with three tiered chambers divided by baffles. A sample was collected of water flowing into the interceptor and designated as #SW-7-Inflow and of water in the last chamber, designated as #SW-7-Baffle in an attempt to determine the source of water.

All pesticides were non-detect within the SW-7-Inflow sample with the exception of p, p-DDT @ 0.085 ppb, Dieldrin @ 0.15 ppb, and Endrin @ 0.093 ppb. All pesticides were non-detect within SW-7 Baffle with the exception of Dieldrin detected at 0.044 ppb and Endosulfan Sulfate at 0.068 ppb. There is no history of the presence or detection of Endosulfan Sulfate onsite, therefore it was determined to be an anomaly. To eliminate water flow into the interceptor a plug was placed in the SW-7 outflow pipe. The shutoff valve remained closed and discharge eliminated.

On January 20, 2012 discrete samples were collected within stormwater systems SW-3 through SW-6 and analyzed for pesticides. All pesticides were non-detect within these samples.

On February 7, 2012 discrete samples were collected within stormwater systems SW-4 through SW-6 and analyzed for pesticides. All pesticides were non-detect within these samples.

On March 14, 2012 a sample was collected within stormwater system SW-6. All pesticides were non-detect within this sample with the exception of p,p'-DDE @ 0.012 ppb and p,p'-DDT at 0.012 ppb. A sample was also collected with SW-7 and all pesticides were non-detect within this sample.

On May 9, 2012 a sample was collected within stormwater interceptor SW-6 and all pesticides were non-detect within this sample with the exception of p,p'-DDD @ 0.021 ppb, and p,p'-DDE at 0.037 ppb, p,p'-DDT at 0.044 ppb and Dieldrin at 0.013 ppb. A sample was also collected within SW-7 and all pesticides were non-detect within this sample with the exception of p,p'-DDD @ 0.066 ppb, and p,p'-DDE at 0.11 ppb, p,p'-DDT at 0.091.

Subsequent to the detection of pesticides within SW-6 and SW-7 the interceptors and associated lines were closely examined. SW-7 outflow pipe was examined by opening the shutoff valve at low tide and examining the pipe interior using a light and camera. A crack was observed in the outflow pipe and determined to be the source of impact by pesticides. ETS contacted 15 contractors attempting to find a method to repair the line in place using a material that would not impact the environment. A contract was signed with Veolia Environmental to repair the line in May 2012. After multiple attempts to get on Veolia's schedule Veolia cancelled the contract on July 12, 2012 stating that they "were in the process of restructuring for the West Coast Division and at this time they were no longer able to provide the services quoted". Subsequently, LRTC repaired the pipe by placing a clean 8" diameter PVC pipe inside the cracked existing pipe and sealing the annular space for the length of the discharge pipe with concrete. The pipe is now in good condition and no longer leaks. An additional slide valve was installed

inside SW-7, at the inflow to the new PVC to further isolate SW-7 from potential bay water intrusion.

During the inspection of the stormwater systems ETS noted a crack in the SW-6 interceptor at the seam where the below ground interceptor wall meets the above-ground interceptor walls. The interceptor was emptied and cleaned and the crack repaired by ETS on October 21, 2011, using Simpson StrongTie® Anchor System Set-XP, meeting NSF/ANSI Standard 61 and environmentally safe epoxy based anchoring adhesive to repair the crack. The repair was successful.

Subsequent to the repair of stormwater systems SW-6 and SW-7, each interceptor was emptied and cleaned as needed to eliminate discharge into surface waters. Plans were developed to place gate valves, sampling platforms, and UltraGuard socks on the outflow of stormwater systems SW-3 through SW-7. As of the date of this OMP gate valves were installed on SW-3 through SW-7.

The cap was inspected by a concrete contractor and reported to be in good condition. The stormwater lines associated with SW-3 through SW-7 are scheduled to be cleaned and inspected prior to entering the 2012-2013 wet season. The integrity of the stormwater systems will also be examined. ETS will continue to monitor the systems for pesticides and PCBs throughout the 2012-2013 annual reporting year.

The finding and results submitted in this document satisfy the requirements of the Operations and Maintenance Plan, as stipulated by the U.S. EPA Consent Decree for the completed Upland Cap Installation for the Former United Heckathorn Facility, Richmond, California.

Prepared by:

Helen A. Mawhinney
ENVIRONMENTAL TECHNICAL SERVICES
Senior Environmental Specialist

Date:

inside SW-7, at the inflow to the new PVC to further isolate SW-7 from potential bay water intrusion.

During the inspection of the stormwater systems ETS noted a crack in the SW-6 interceptor at the seam where the below ground interceptor wall meets the above-ground interceptor walls. The interceptor was emptied and cleaned and the crack repaired by ETS on October 21, 2011, using Simpson StrongTie® Anchor System Set-XP, meeting NSF/ANSI Standard 61 and environmentally safe epoxy based anchoring adhesive to repair the crack. The repair was successful.

Subsequent to the repair of stormwater systems SW-6 and SW-7, each interceptor was emptied and cleaned as needed to eliminate discharge into surface waters. Plans were developed to place gate valves, sampling platforms, and UltraGuard socks on the outflow of stormwater systems SW-3 through SW-7. As of the date of this OMP gate valves were installed on SW-3 through SW-7.

The cap was inspected by a concrete contractor and reported to be in good condition. The stormwater lines associated with SW-3 through SW-7 are scheduled to be cleaned and inspected prior to entering the 2012-2013 wet season. The integrity of the stormwater systems will also be examined. ETS will continue to monitor the systems for pesticides and PCBs throughout the 2012-2013 annual reporting year.

The finding and results submitted in this document satisfy the requirements of the Operations and Maintenance Plan, as stipulated by the U.S. EPA Consent Decree for the completed Upland Cap Installation for the Former United Heckathorn Facility, Richmond, California.

Prepared by:


Helen A. Mawhinney
ENVIRONMENTAL TECHNICAL SERVICES
Senior Environmental Specialist

2-25-13
Date:

Table I, LRTC Stormwater Pollution Prevention and Response Team Personnel:

Personnel	Title/Position	SWPP Responsibility
Helen Mawhinney	Environmental Technical Services (ETS) Owner/Senior Environmental Specialist	Develop Stormwater Pollution Prevention Plan, Monitoring Plan, and Annual Report; supervise stormwater pollution prevention; perform random third party site inspections; direct stormwater supervisors in implementation of BMPs; conduct stormwater pollution prevention training, including sample collecting; perform stormwater sampling; monitor SWPPP materials placement; develop new BMPs, assist in implementation of current BMPs; and sample and profile yard sweepings
Patrick O'Driscoll	Operations Superintendent	Support stormwater pollution prevention activities and personnel. Reports to CEO.
Tony Lester	Levin Richmond Terminal) Operations Supervisor	Supervise stormwater pollution prevention; perform site inspections; direct employees in implementation of BMPs; perform tailgate meetings/briefings; conduct interim training; perform stormwater sampling; monitor SWPPP materials condition, inventory, placement; develop new BMPs, implement current BMPs; supervise maintenance of SWPPP equipment (sweepers, vacuums), implement and supervise cleanout of stormwater systems
Jim Alexander James Parks James Sanchez Mitch Moreno Eduardo Ortiz Luke Hissom W. Norman Louis Williams Carlos Cidhernandez A. Moreno J. Solorzano Javier Gonzales	Levin Richmond Terminal Operating Engineers	Clean and maintain SWPPP-designated storage room, sweep and clean site, clean oily equipment, maintain equipment, place oil pans/absorbents under equipment, replace SWPPP materials, clean stormwater systems

Table II - Significant Materials Locations And Quantities

SIGNIFICANT MATERIAL		LOCATION	ANNUAL QUANTITY	
			<i>2011 metric tonnage</i>	
Green Coke		Main Yard	41,560.0	
Calcined Coke		Main Yard/Storage Bldg. South Parr/Tarps	215,129.0	
Flexi-Coke		South Parr Yard-Transloaded pneumatically from sealed tanker trucks into enclosed railcars using backhouses installed on tanker trucks by others	36,334.0	
Steel Scrap		Main Yard loaded from trucks to ships, not stored onsite	405,974.0	
Iron Ore (new material 2011)		Main Yard	729,327.69	
SIGNIFICANT MATERIAL		LOCATION	ANNUAL QUANTITY	AVERAGE DAILY AMOUNT
Waste Oil		Maintenance Shop	2,400 gal	200 gals
		"A" Berth Awning		
Gasoline		Main Yard, Fuel Station		250 gals
Diesel Fuel		Main Yard, Fuel Station		5,000 gals
Diesel Fuel		Railroad Maintenance		1,500 gals
Lubricating Oil	150/68	"A" Berth Awning		338 gals
	150/68	"A" Berth Awning		220 gals
	150/68	Maintenance Shop		220 gals
	Coast 400	Rail Maintenance		40 gals
	Coast 400	Maintenance Shop		150 gals
	SAE 30	Rail Maintenance		40 gals
Hydraulic Fluid		A Berth Awning		(7) 5 gals
EGME ZEP FORM 40		Rail Maintenance		30 gals
Acetylene		Fabrication Shop		1,140 cu ft
Propane		Fabrication Shop		50 cu ft
EGDG Antifreeze		Fabrication Shop		110 gals

Table III - Significant Materials Best Management Practices (BMPs)

<i>Quantity and variety of materials vary throughout the year.</i>		
Significant Materials	Structural BMPs	Treatment BMPs
Green Coke	Bermed with jackwalls Area drains to interceptor	Misted with water, sprayed with Soil-Sement and Haul Road, Street sweeping
Calcined Coke	Bermed with jackwalls Area drains to interceptor	Tarped or stored in building Street sweeping
Flexicoke	Contained in trucks and railcars	Pneumatically pumped in a sealed system with bag houses
Coal	Bermed with jackwalls Area drains to interceptor	Mist with water, sprayed with Soil-Sement and Haul Road Street sweeping
Steel Scrap	Direct transfer	Direct transfer from trucks to vessels using contained steel skiffs Street sweeping Mist with water
Iron Ore	Bermed with jackwalls Area drains to interceptor	Mist with water, sprayed with Soil-Sement or Haul Road Street sweeping
Significant Materials		
Waste Oil	Maintenance Shop, within building "A" Berth Awning, covered, bermed, and a closed system containing drain inlet and collection vault	Spill proof containers, drip pans, absorbents
Gasoline	Double contained aboveground fuel station	Absorbents
Diesel Fuel	Double contained aboveground fuel station	Absorbents
Lubricating Oil	"A" Berth Awning - covered and bermed and a closed system containing drain inlet and collection vault Maintenance Shop - covered and bermed. Maintenance Lube Shop, covered, bermed Rail Maintenance - covered and bermed	Spill proof containers, drip pans, absorbents

Table III - continued

Dry Bulk Stockpiled Materials	Structural BMPs	Treatment BMPs
Petroleum Based Oil/Hydraulic Fluid	"A" Berth Awning, covered, bermed and a closed system containing drain inlet and collection vault	Spill proof containers, drip pans, absorbents
Light Aliphatic Naptha	"A" Berth Awning, covered, bermed and a closed system containing drain inlet and collection vault Rail Maintenance, covered, bermed	Spill proof containers, drip pans, absorbents
Lubricating Grease	"A" Berth Awning, covered, bermed and a closed system containing drain inlet and collection vault Maintenance Lube Shop, within building	Spill proof containers, drip pans, absorbents
Ethylene Glycol	Maintenance Shop, within building "A" Berth Awning, covered, bermed and a closed system containing drain inlet and collection vault	Spill proof containers, drip pans, absorbents

ACRONYMS

FRA	Federal Railroad Administration
B	Benzene
T	Toluene
E	Ethylbenzene
X	Xylenes
COD	Chemical Oxygen Demand
TOC	Total Organic Carbon
TPH	Total Petroleum Hydrocarbons
g	Gasoline
mo	Motor Oil
TSS	Total Suspended Solids
AL	Aluminum
CU	Copper
FE	Iron
PB	Lead
VN	Vanadium
ZN	Zinc

Attachment A

Maps

C:\Users\jmc\My Documents\AUTOCAD 2009\STORMWATER 2012\STORMWATER PLANS\UPDATED 10-31-12.dwg, 11/5/2012 8:30:49 AM, ANSI expand 8 (17.00 x 11.00 inches), 1200

LEGEND

STORM WATER MANAGEMENT

SO.PARR UNDERGROUND PIPE

UNDERGROUND PIPING

STORM WATER SWALES

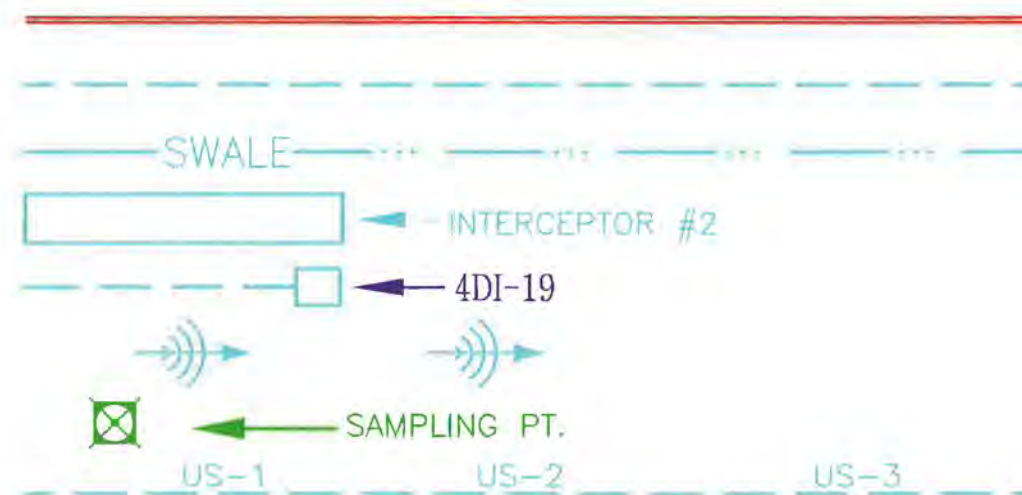
STORM WATER INTERCEPTORS

STORM WATER DRAIN INLETS

STORM WATER SHEET FLOW

STORM WATER SAMPLING POINT

UNDERGROUND TRANSFER SYSTEM
PIPING (UNDER CONSTRUCTION)



RAIL ROAD MARKINGS

ALL RAILROAD RAIL

RAILROAD CROSSING PANELS



OTHER SYMBOLS

PROPERTY LINE

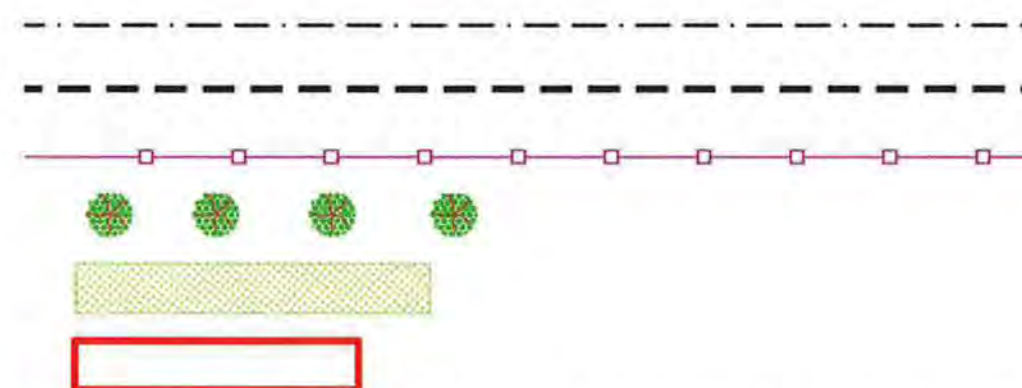
PORTABLE CONTAINMENT WALL

FENCE LINE

TREES

SMALL SHRUBS

BOXCAR/CONTAINER



XXX followed by P-DW, SW, WD, W, etc. -- DENOTES -- WEIGHT OR VISCOSITY

NAL ----- DENOTES -- NALCOOL 2000 COOLANT ADDITIVE

AST ----- DENOTES -- ABOVE GROUND STORAGE TANK

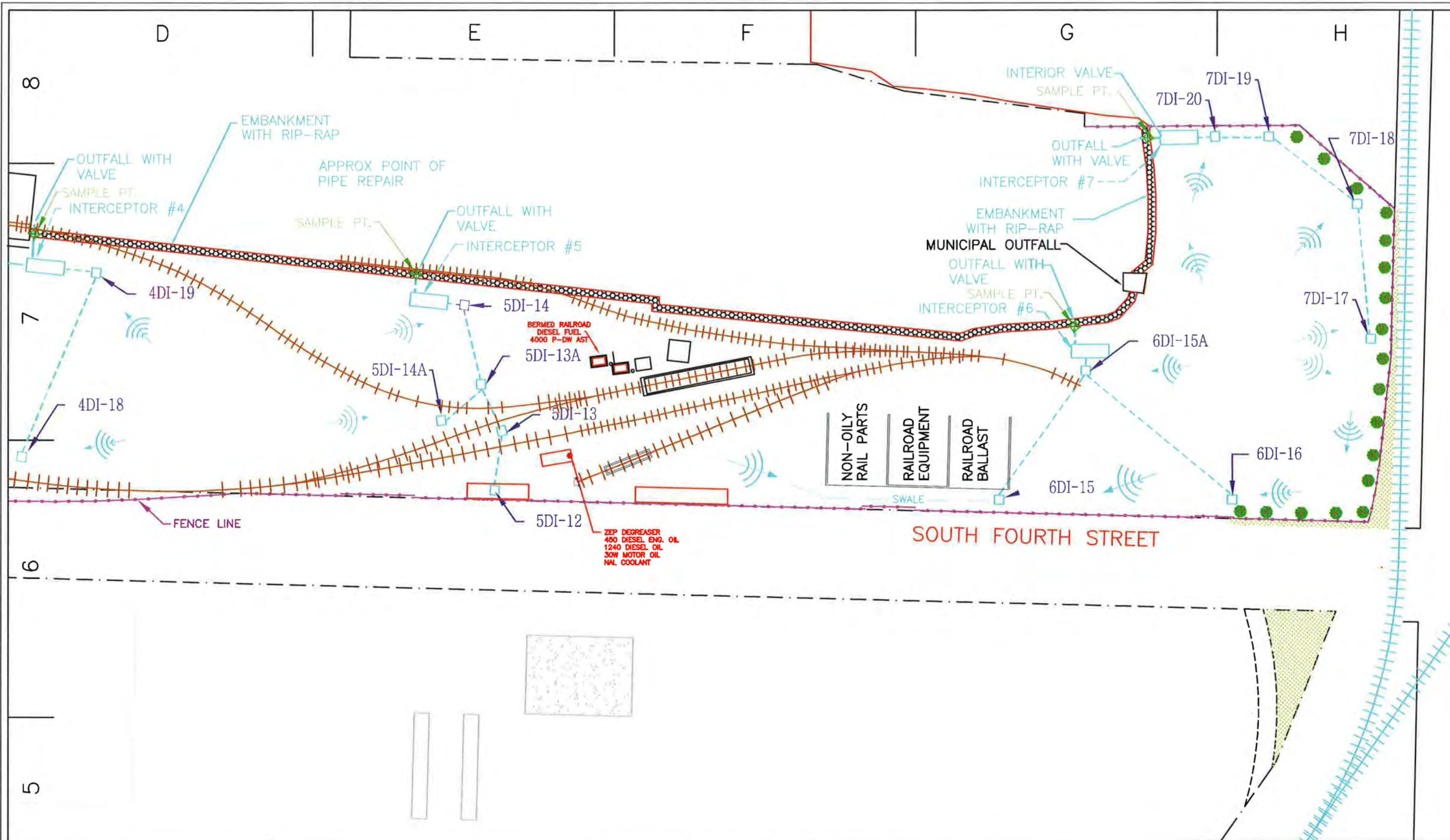
SCALE: NTS

LEVIN-RICHMOND TERMINAL
STORM WATER FLOW, CATCH BASINS AND INTERCEPTORS
LEGEND OF LINES, OBJECTS AND SYMBOLS

1 OF 1

DATE: 11/02/12

C:\Users\jmc\My Documents\AutoCAD 2009\STORMWATER 2012\STORMWATER PLANS UPDATED 10-31-12.dwg, 1/7/2013 11:27:51 AM, ANSI expand 8 (27.00 x 11.00 inches), 200



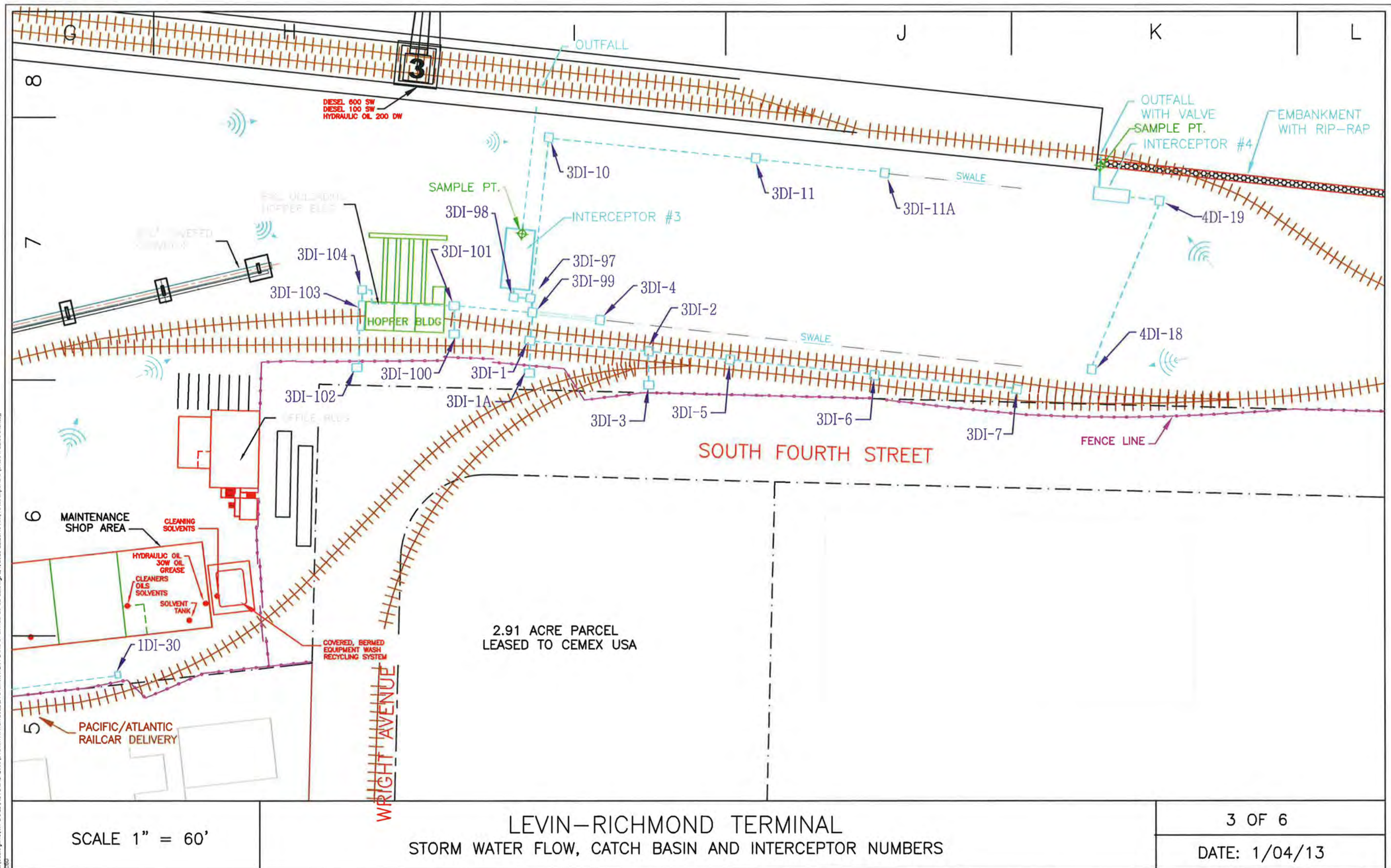
SCALE 1" = 60'

LEVIN-RICHMOND TERMINAL
STORM WATER FLOW, CATCH BASIN AND INTERCEPTOR NUMBERS

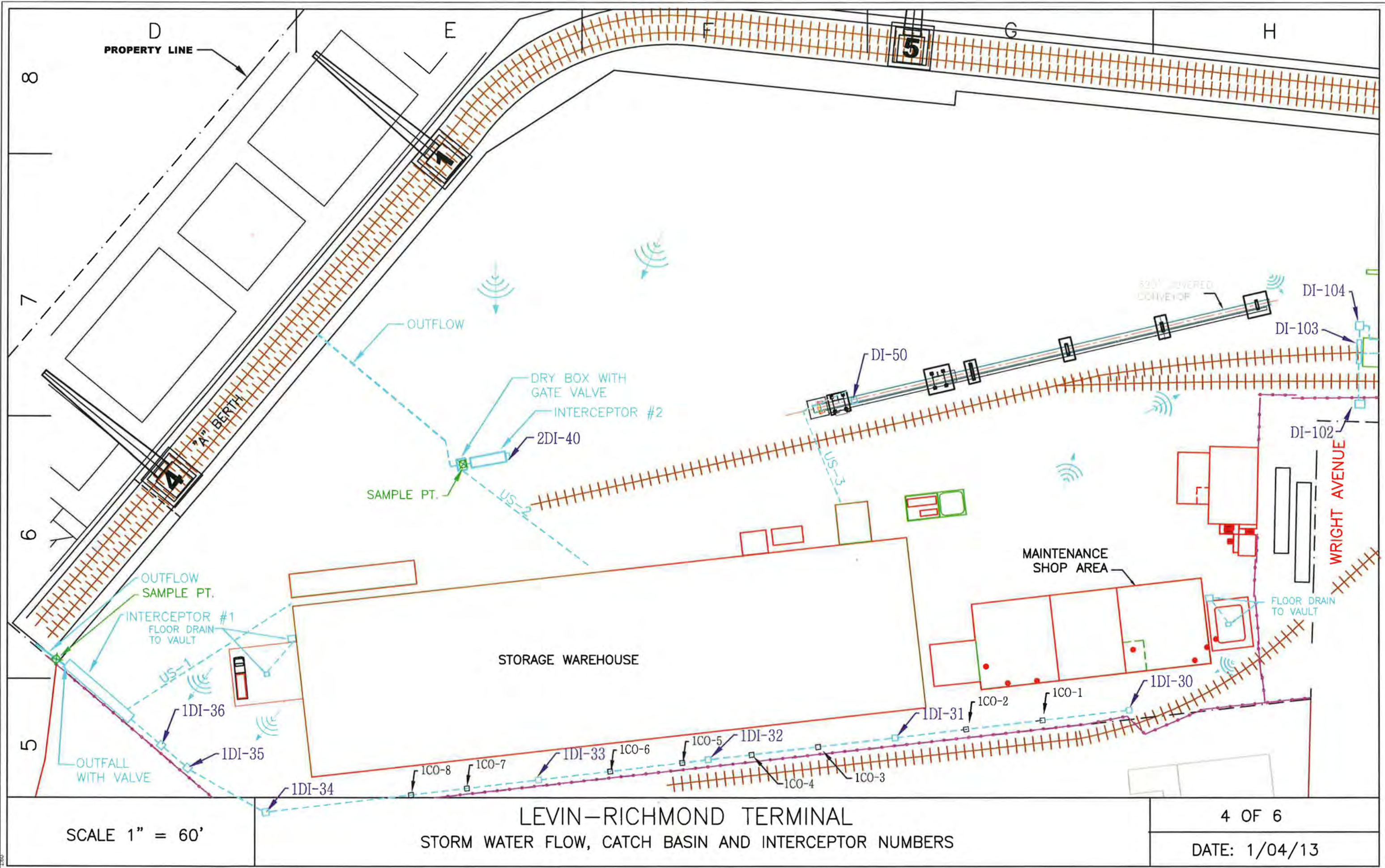
2 OF 6

DATE: 1/04/13

C:\Users\jmc\My Documents\AUTOCAD 2009\STORMWATER 2012\STORMWATER PLANS\UPDATED 10-31-12.dwg, 1/7/2013 11:28:40 AM, ANSI expand 8 (07.00 x 11.00 Inches), 1/200



C:\Users\jmc\My Documents\2013\STORMWATER PLANS\2013\STORMWATER PLANS\2013\11-29-24 AM, ANS\expand 8 (17.00 x 11.00 Inches).dwg, 1/7/2013 11:29:24 AM, ANS\expand 8 (17.00 x 11.00 Inches).dwg



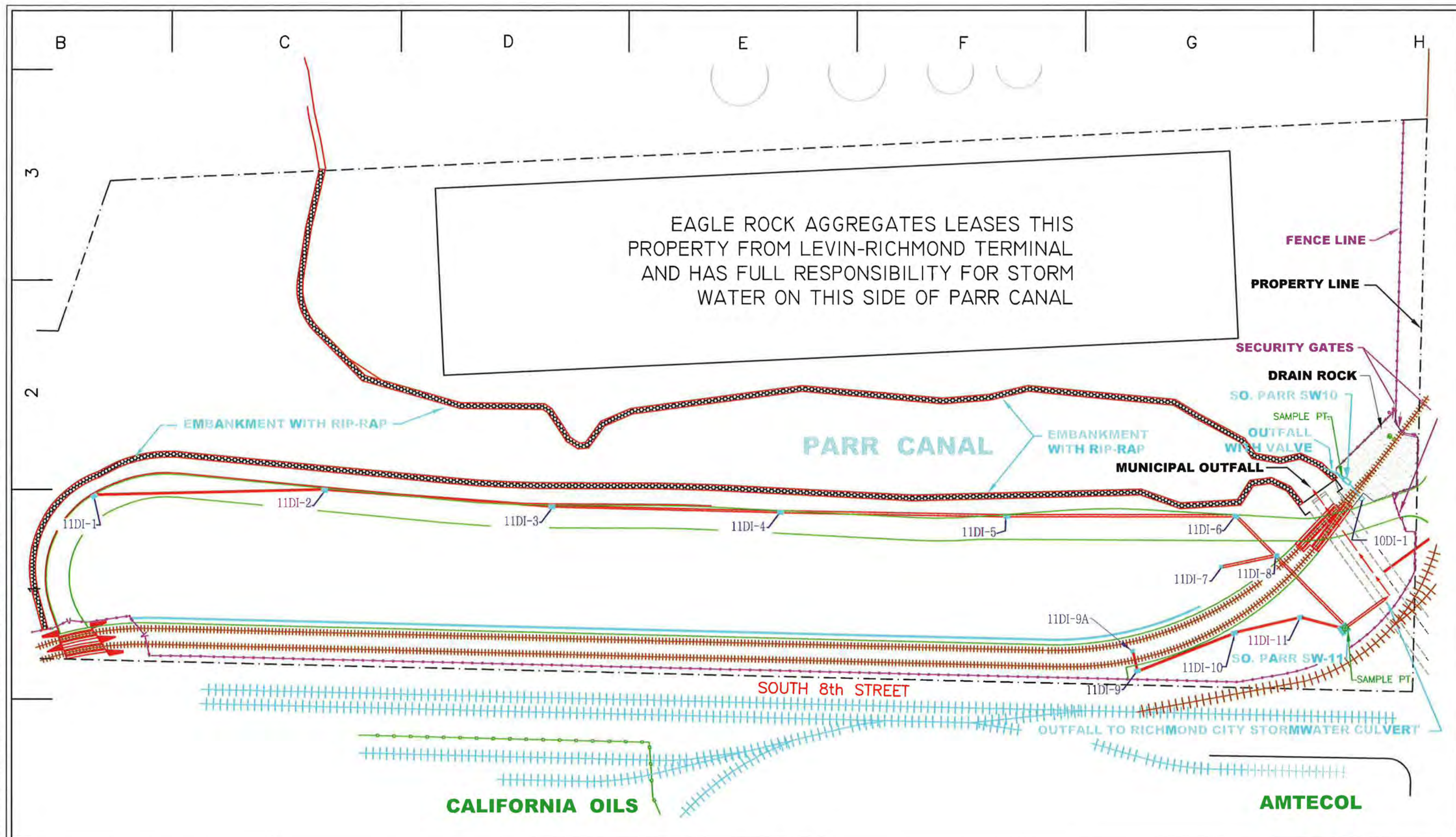
SCALE 1" = 60'

LEVIN-RICHMOND TERMINAL
STORM WATER FLOW, CATCH BASIN AND INTERCEPTOR NUMBERS

4 OF 6

DATE: 1/04/13

C:\Users\jmc\My Documents\AUTOCAD 2009\STORMWATER PLANS\UPDATED 10-31-12.dwg, 1/7/2013 11:30:23 AM, ANSI expand 8 (17.00 x 11.00 Inches), 1:80



SCALE 1" = 80'

LEVIN-RICHMOND TERMINAL
STORM WATER FLOW, CATCH BASIN AND INTERCEPTOR NUMBERS

5 OF 6

DATE: 1/04/13

LEVIN-RICHMOND TERMINAL
STORM WATER FLOW, CATCH BASIN AND INTERCEPTOR NUMBERS

DATE: 1/04/13

Attachment B

Buster Building, General Contractor

License No. 513203

Inspection of Concrete Cap

May 24, 2012

BUSTER BUILDING, License 513203 C8

298 Cragmont, San Jose, California 95127 Phone: (408) 251-5446 Fax: (408) 251-3158 busterbn@pacbell.net

May 24, 2012

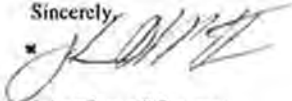
Environmental Technical Services
1548 Jacob Ave
San Jose, CA 95118
Attn: Helen Mawhinney
Senior Environmental Specialist

**RE: Upland Cap Inspection, Former United Heckathorn Facility
402 Wright Avenue, Richmond, California**

The Upland Cap located at the Former United Heckathorn Facility, was inspected by John Peterson for Buster Building, General Contractor, License No. 513203 C8 (concrete) on May 24, 2012, and found to be intact and in good condition.

The cap was found to be uncompromised and in good condition, with only occasional surface hairline cracks typical of those that develop subsequent to the curing of freshly poured concrete. The cracks are insignificant and not indicative of stress fractures. These surface cracks are too small to repair.

Sincerely,



John "Buster" Peterson
General Contractor

Attachment C Tables

Annual Sampling Events

January 20, 2012
February 7, 2012
March 14, 2012

Discharge to Sanitary Sewer Stormwater Systems Cleanout Sampling Events

October 5, 2011
November 29, 2011
January 25, 2012
March 29, 2012
April 5, 2012

Other Sampling Events

October 27, 2011
January 25, 2012
March 14, 2012
May 9, 2012

Annual Sampling Events

January 20, 2012

February 7, 2012

March 14, 2012

Environmental Technical Services Analysis Report

16	Event Date: 1/20/2012	Customer: Levin Richmond Terminal
Site:	402 Wright Ave	Richmond CA
Project Name:	LRT First Annual Stormwater Sampling Event	
Sample Name:	LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12	
Sampler:	Helen Mawhinney	Sr. Environmental Consultant
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644	
Description:	Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.	

Sample Location: SW-1 Sample Time: 1/20/2012 12:00:00 PM

Analyte	Result	Limit	UOM	Method
Endrin aldehyde	ND	0.05	ppb	SW8081A
Endrin ketone	ND	0.05	ppb	SW8081A
Heptachlor	ND	0.01	ppb	SW8081A
Heptachlor epoxide	ND	0.01	ppb	SW8081A
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Endrin	ND	0.01	ppb	SW8081A
Endosulfan sulfate	ND	0.05	ppb	SW8081A
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A
Methoxychlor	ND	0.1	ppb	SW8081A
Toxaphene	ND	0.5	ppb	SW8081A
Copper	22	0.5	ppb	E200.8
TPH-Motor Oil (C18-C36)	330	250	ppb	SW8015B
Toluene	ND	0.5	ppb	SW8260B
Hexachlorobenzene	ND	0.5	ppb	SW8081A
Benzene	ND	0.5	ppb	SW8260B
TPH-Diesel (C10-C23)	200	50	ppb	SW8015B
Lead	20	0.5	ppb	E200.8
Chemical Oxygen Demand	15	10	ppm	SM5220D
Iron	1600	50	ppb	E200.7
Aluminum	640	50	ppb	E200.7
pH	7.39	0.05	pH units @ °C	SM4500H+B
Zinc	170	5	ppb	E200.8
Specific Conductivity	117	10	µmhos/cm@25°C	SM2510B
Xylenes, Total	ND	0.5	ppb	SW8260B
Endosulfan II	ND	0.02	ppb	SW8081A
Vanadium	5	0.5	ppb	E200.8
Organic Carbon, Total	5.6	0.3	ppm	E415.3
Ethylbenzene	ND	0.5	ppb	SW8260B
g-BHC	ND	0.02	ppb	SW8081A
Hexane Extractable Material w/o Silica Gel Cleanup	ND	5	ppm	E1664A

Laboratory Analytical Report 16 1/20/2012 Levin Richmond Terminal

Environmental Technical Services Analysis Report

	16	Event Date: 1/20/2012	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond CA
Project Name:	LRT First Annual Stormwater Sampling Event		
Sample Name:	LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12		
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.		

Sample Location: SW-1 Sample Time: 1/20/2012 12:00:00 PM

Analyte	Result	Limit	UOM	Method
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Endosulfan I	ND	0.02	ppb	SW8081A
Aldrin	ND	0.005	ppb	SW8081A
Total Suspended Solids	48	1	ppm	SM2540D
d-BHC	ND	0.005	ppb	SW8081A
a-BHC	ND	0.01	ppb	SW8081A
Chlordane (Technical)	ND	0.1	ppb	SW8081A
a-Chlordane	ND	0.05	ppb	SW8081A
g-Chlordane	ND	0.05	ppb	SW8081A
p,p-DDD	ND	0.01	ppb	SW8081A
p,p-DDE	ND	0.01	ppb	SW8081A
p,p-DDT	ND	0.01	ppb	SW8081A
Dieldrin	ND	0.01	ppb	SW8081A
b-BHC	ND	0.005	ppb	SW8081A

Environmental Technical Services Analysis Report

Page:	16	Event Date:	1/20/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond	CA	
Project Name:	LRT First Annual Stormwater Sampling Event				
Sample Name:	LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12				
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant		
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.				

Sample Location: SW-2	Sample Time: 1/20/2012 1:00:00 PM			
Analyte	Result	Limit	UOM	Method
Zinc	450	5	ppb	E200.8
Copper	49	0.5	ppb	E200.8
Xylenes, Total	ND	0.5	ppb	SW8260B
Toluene	ND	0.5	ppb	SW8260B
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Ethylbenzene	ND	0.5	ppb	SW8260B
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Vanadium	25	0.5	ppb	E200.8
Aluminum	5400	50	ppb	E200.7
Iron	10000	50	ppb	E200.7
Lead	75	0.5	ppb	E200.8
Chemical Oxygen Demand	310	10	ppm	SM5220D
Benzene	ND	0.5	ppb	SW8260B
Endrin ketone	ND	0.05	ppb	SW8081A
γ-Chlordane	ND	0.05	ppb	SW8081A
TPH-Motor Oil (C18-C36)	ND	250	ppb	SW8015B
p,p-DDD	ND	0.01	ppb	SW8081A
p,p-DDE	ND	0.01	ppb	SW8081A
p,p-DDT	ND	0.01	ppb	SW8081A
Dieldrin	ND	0.01	ppb	SW8081A
Endosulfan I	ND	0.02	ppb	SW8081A
α-Chlordane	ND	0.05	ppb	SW8081A
Endrin aldehyde	ND	0.05	ppb	SW8081A
Endosulfan II	ND	0.02	ppb	SW8081A
Heptachlor	ND	0.01	ppb	SW8081A
Heptachlor epoxide	ND	0.01	ppb	SW8081A
Hexachlorobenzene	ND	0.5	ppb	SW8081A
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A
Methoxychlor	ND	0.1	ppb	SW8081A
Toxaphene	ND	0.5	ppb	SW8081A

Environmental Technical Services Analysis Report

	16	Event Date: 1/20/2012	Customer: Levin Richmond Terminal
Site:	402 Wright Ave		Richmond CA
Project Name:	LRT First Annual Stormwater Sampling Event		
Sample Name:	LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12		
Sampler:	Helen Mawhinney	Sr. Environmental Consultant	
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.		

Sample Location: SW-2	Sample Time: 1/20/2012 1:00:00 PM			
Analyte	Result	Limit	UOM	Method
pH	7.03	0.05	pH units @ °C	SM4500H+8
Endosulfan sulfate	ND	0.05	ppb	SW8081A
d-BHC	ND	0.005	ppb	SW8081A
Endrin	ND	0.01	ppb	SW8081A
Chlordane (Technical)	ND	0.1	ppb	SW8081A
Aldrin	ND	0.005	ppb	SW8081A
a-BHC	ND	0.01	ppb	SW8081A
Specific Conductivity	192	10	µmhos/cm@25°C	SM2510B
b-BHC	ND	0.005	ppb	SW8081A
Hexane Extractable Material w/o Silica Gel Cleanup	ND	5	ppm	E1664A
Organic Carbon, Total	18	0.3	ppm	E415.3
Total Suspended Solids	330	1	ppm	SM2540D
TPH-Diesel (C10-C23)	77	50	ppb	SW8015B
g-BHC	ND	0.02	ppb	SW8081A

Environmental Technical Services Analysis Report

ID:	16	Event Date:	1/20/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond		CA
Project Name:	LRT First Annual Stormwater Sampling Event				
Sample Name:	LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12				
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant		
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.				

Sample Location:	SW-3	Sample Time:	1/20/2012 1:20:00 PM
------------------	------	--------------	----------------------

Analyte	Result	Limit	UOM	Method
Lead	9.9	0.5	ppb	E200.8
Iron	3900	50	ppb	E200.7
g-BHC	ND	0.02	ppb	SW8081A
Chlordane (Technical)	ND	0.1	ppb	SW8081A
g-Chlordane	ND	0.05	ppb	SW8081A
Dieldrin	ND	0.01	ppb	SW8081A
Aluminum	1700	50	ppb	E200.7
α-Chlordane	ND	0.05	ppb	SW8081A
d-BHC	ND	0.005	ppb	SW8081A
p,p-DDT	ND	0.01	ppb	SW8081A
p,p-DDD	ND	0.01	ppb	SW8081A
TPH-Motor Oil (C18-C36)	ND	250	ppb	SW8015B
Endosulfan I	ND	0.02	ppb	SW8081A
b-BHC	ND	0.005	ppb	SW8081A
α-BHC	ND	0.01	ppb	SW8081A
Aldrin	ND	0.005	ppb	SW8081A
Total Suspended Solids	68	1	ppm	SM2540D
Hexane Extractable Material w/o Silica Gel Cleanup	ND	5	ppm	E1664A
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Endosulfan II	ND	0.02	ppb	SW8081A
Copper	12	0.5	ppb	E200.8
p,p-DDE	ND	0.01	ppb	SW8081A
Xylenes, Total	ND	0.5	ppb	SW8260B
Toluene	ND	0.5	ppb	SW8260B
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Ethylbenzene	ND	0.5	ppb	SW8260B
Benzene	ND	0.5	ppb	SW8260B
Chemical Oxygen Demand	45	10	ppm	SM5220D
Methoxychlor	ND	0.1	ppb	SW8081A
Endosulfan sulfate	ND	0.05	ppb	SW8081A

Environmental Technical Services Analysis Report

	16	1/20/2012	Customer: Levin Richmond Terminal
Site:	402 Wright Ave		Richmond CA
Project Name:	LRT First Annual Stormwater Sampling Event		
Sample Name:	LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12		
Sampler:	Helen Mawhinney	Sr. Environmental Consultant	
Analytical Lab:	McC Campbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.		

Sample Location: SW-3 Sample Time: 1/20/2012 1:20:00 PM

Analyte	Result	Limit	UOM	Method
pH	7.41	0.05	pH units @ °C	SM4500H+8
Zinc	91	5	ppb	E200.8
Specific Conductivity	4350	10	µmhos/cm@25°C	SM2510B
Organic Carbon, Total	5.2	0.3	ppm	E415.3
TPH-Diesel (C10-C23)	110	50	ppb	SW8015B
Vanadium	13	0.5	ppb	E200.8
Toxaphene	ND	0.5	ppb	SW8081A
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A
Hexachlorobenzene	ND	0.5	ppb	SW8081A
Heptachlor epoxide	ND	0.01	ppb	SW8081A
Heptachlor	ND	0.01	ppb	SW8081A
Endrin ketone	ND	0.05	ppb	SW8081A
Endrin aldehyde	ND	0.05	ppb	SW8081A
Endrin	ND	0.01	ppb	SW8081A

Environmental Technical Services Analysis Report

ID:	16	Event Date:	1/20/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave Richmond CA				
Project Name:	LRT First Annual Stormwater Sampling Event				
Sample Name:	LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12				
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant		
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.				

Sample Location: SW-4	Sample Time: 1/20/2012 1:40:00 PM			
Analyte	Result	Limit	UOM	Method
Organic Carbon, Total	4.8	0.3	ppm	E415.3
Specific Conductivity	176	10	µmhos/cm@25°C	SM2510B
TPH-Diesel (C10-C23)	110	50	ppb	SW8015B
TPH-Motor Oil (C18-C36)	ND	250	ppb	SW8015B
Methoxychlor	ND	0.1	ppb	SW8081A
Aluminum	710	50	ppb	E200.7
Toxaphene	ND	0.5	ppb	SW8081A
Benzene	ND	0.5	ppb	SW8260B
Ethylbenzene	ND	0.5	ppb	SW8260B
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Toluene	ND	0.5	ppb	SW8260B
Xylenes, Total	ND	0.5	ppb	SW8260B
Vanadium	7.8	0.5	ppb	E200.8
Heptachlor epoxide	ND	0.01	ppb	SW8081A
pH	7.61	0.05	pH units @ °C	SM4500H+B
Hexane Extractable Material w/o Silica Gel Cleanup	ND	5	ppm	E1664A
Total Suspended Solids	17.6	1	ppm	SM2540D
Zinc	65	5	ppb	E200.8
Copper	12	0.5	ppb	E200.8
Chemical Oxygen Demand	ND	10	ppm	SM5220D
Aldrin	ND	0.005	ppb	SW8081A
a-BHC	ND	0.01	ppb	SW8081A
b-BHC	ND	0.005	ppb	SW8081A
Iron	1400	50	ppb	E200.7
Lead	6.7	0.5	ppb	E200.8
d-BHC	ND	0.005	ppb	SW8081A
g-BHC	ND	0.02	ppb	SW8081A
Chlordane (Technical)	ND	0.1	ppb	SW8081A
a-Chlordane	ND	0.05	ppb	SW8081A
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A

Laboratory Analytical Report **ID:** 16 **Event Date:** 1/20/2012 **Customer:** Levin Richmond Terminal

Environmental Technical Services Analysis Report

ID:	16	Event Date:	1/20/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond		CA
Project Name:	LRT First Annual Stormwater Sampling Event				
Sample Name:	LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12				
Sampler:	Helen Mawhinney		Title:		Sr. Environmental Consultant
Analytical Lab:	McC Campbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.				

Sample Location:	SW-4	Sample Time:	1/20/2012 1:40:00 PM		
Analyte	Result	Limit	UOM	Method	
p,p-DDD	ND	0.01	ppb	SW8081A	
Hexachlorobenzene	ND	0.5	ppb	SW8081A	
p,p-DDE	ND	0.01	ppb	SW8081A	
Dieldrin	ND	0.01	ppb	SW8081A	
Endosulfan I	ND	0.02	ppb	SW8081A	
Endosulfan II	ND	0.02	ppb	SW8081A	
Heptachlor	ND	0.01	ppb	SW8081A	
Endosulfan sulfate	ND	0.05	ppb	SW8081A	
Endrin	ND	0.01	ppb	SW8081A	
p,p-DDT	ND	0.01	ppb	SW8081A	
g-Chlordane	ND	0.05	ppb	SW8081A	
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B	
Endrin ketone	ND	0.05	ppb	SW8081A	
Endrin aldehyde	ND	0.05	ppb	SW8081A	

Environmental Technical Services Analysis Report

ID:	16	Event Date:	1/20/2012	Levin Richmond Terminal
Site:	402 Wright Ave	Richmond	CA	
Project Name:	LRT First Annual Stormwater Sampling Event			
Sample Name:	LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12			
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant	
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644			
Description:	Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.			

Sample Location: SW-5 Sample Time: 1/20/2012 2:00:00 PM

Analyte	Result	Limit	UOM	Method
TPH-Diesel (C10-C23)	120	50	ppb	SW8015B
Zinc	88	5	ppb	E200.8
Lead	4.2	0.5	ppb	E200.8
Total Suspended Solids	8.4	1	ppm	SM2540D
TPH-Motor Oil (C18-C36)	300	250	ppb	SW8015B
Vanadium	4.3	0.5	ppb	E200.8
Copper	19	0.5	ppb	E200.8
Organic Carbon, Total	7.9	0.3	ppm	E415.3
Specific Conductivity	149	10	µmhos/cm@25°C	SM2510B
pH	7.43	0.05	pH units @ °C	SM4500H+B
Endrin aldehyde	ND	0.05	ppb	SW8081A
γ-Chlordane	ND	0.05	ppb	SW8081A
p,p-DDD	ND	0.01	ppb	SW8081A
p,p-DDE	ND	0.01	ppb	SW8081A
p,p-DDT	ND	0.01	ppb	SW8081A
Dieldrin	ND	0.01	ppb	SW8081A
Endosulfan I	ND	0.02	ppb	SW8081A
Endosulfan II	ND	0.02	ppb	SW8081A
Chlordane (Technical)	ND	0.1	ppb	SW8081A
Endrin	ND	0.01	ppb	SW8081A
α-Chlordane	ND	0.05	ppb	SW8081A
Endrin ketone	ND	0.05	ppb	SW8081A
Heptachlor	ND	0.01	ppb	SW8081A
Heptachlor epoxide	ND	0.01	ppb	SW8081A
Hexachlorobenzene	ND	0.5	ppb	SW8081A
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A
Methoxychlor	ND	0.1	ppb	SW8081A
Toxaphene	ND	0.5	ppb	SW8081A
Endosulfan sulfate	ND	0.05	ppb	SW8081A
α-BHC	ND	0.01	ppb	SW8081A

Laboratory Analytical Report 16 1/20/2012 Levin Richmond Terminal

Environmental Technical Services Analysis Report

ID:	16	Event Date:	1/20/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond		CA
Project Name:	LRT First Annual Stormwater Sampling Event				
Sample Name:	LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12				
Sampler:	Helen Mawhinney		Sr. Environmental Consultant		
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkyl Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.				

Sample Location: SW-5 Sample Time: 1/20/2012 2:00:00 PM

Analyte	Result	Limit	UOM	Method
Xylenes, Total	ND	0.5	ppb	SW8260B
Toluene	ND	0.5	ppb	SW8260B
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Ethylbenzene	ND	0.5	ppb	SW8260B
Aluminum	160	50	ppb	E200.7
Hexane Extractable Material w/o Silica Gel Cleanup	ND	5	ppm	E1664A
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Benzene	ND	0.5	ppb	SW8260B
Chemical Oxygen Demand	17	10	ppm	SM5220D
b-BHC	ND	0.005	ppb	SW8081A
Iron	440	50	ppb	E200.7
d-BHC	ND	0.005	ppb	SW8081A
g-BHC	ND	0.02	ppb	SW8081A
Aldrin	ND	0.005	ppb	SW8081A

Environmental Technical Services Analysis Report

ID:	16	1/20/2012	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond CA
Project Name:	LRT First Annual Stormwater Sampling Event		
Sample Name:	LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12		
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant
Analytical Lab:	McC Campbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.		

Sample Location: SW-6	Sample Time: 1/20/2012 3:00:00 PM
-----------------------	-----------------------------------

Analyte	Result	Limit	UOM	Method
Xylenes, Total	ND	0.5	ppb	SW8260B
Hexane Extractable Material w/o Silica Gel Cleanup	ND	5	ppm	E1664A
Total Suspended Solids	10.8	1	ppm	SM2540D
Aldrin	ND	0.005	ppb	SW8081A
Specific Conductivity	139	10	µmhos/cm@25°C	SM2510B
TPH-Diesel (C10-C23)	220	50	ppb	SW8015B
Organic Carbon, Total	8	0.3	ppm	E415.3
a-BHC	ND	0.01	ppb	SW8081A
pH	7.38	0.05	pH units @ °C	SM4500H+B
TPH-Motor Oil (C18-C36)	320	250	ppb	SW8015B
Chemical Oxygen Demand	15	10	ppm	SM5220D
Heptachlor	ND	0.01	ppb	SW8081A
Hexachlorobenzene	ND	0.5	ppb	SW8081A
b-BHC	ND	0.005	ppb	SW8081A
Methoxychlor	ND	0.1	ppb	SW8081A
Toxaphene	ND	0.5	ppb	SW8081A
Lead	8.5	0.5	ppb	E200.8
Vanadium	5.3	0.5	ppb	E200.8
Iron	700	50	ppb	E200.7
Heptachlor epoxide	ND	0.01	ppb	SW8081A
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Copper	32	0.5	ppb	E200.8
Benzene	ND	0.5	ppb	SW8260B
Ethylbenzene	ND	0.5	ppb	SW8260B
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Toluene	ND	0.5	ppb	SW8260B
Aluminum	300	50	ppb	E200.7
g-Chlordane	ND	0.05	ppb	SW8081A
d-BHC	ND	0.005	ppb	SW8081A
g-BHC	ND	0.02	ppb	SW8081A

Environmental Technical Services Analysis Report

16	Event Date: 1/20/2012	Levin Richmond Terminal
Site: 402 Wright Ave	Richmond	CA
Project Name: LRT First Annual Stormwater Sampling Event		
Sample Name: LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12		
Sampler: Helen Mawhinney	Title: Sr. Environmental Consultant	
Analytical Lab: McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description: Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.		

Sample Location: SW-6 **Sample Time:** 1/20/2012 3:00:00 PM

Analyte	Result	Limit	UOM	Method
Chlordane (Technical)	ND	0.1	ppb	SW8081A
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A
α-Chlordane	ND	0.05	ppb	SW8081A
Endrin ketone	ND	0.05	ppb	SW8081A
p,p-DDD	ND	0.01	ppb	SW8081A
p,p-DDE	ND	0.01	ppb	SW8081A
Endrin	ND	0.01	ppb	SW8081A
Zinc	180	5	ppb	E200.8
Dieldrin	ND	0.01	ppb	SW8081A
Endosulfan I	ND	0.02	ppb	SW8081A
Endosulfan II	ND	0.02	ppb	SW8081A
Endosulfan sulfate	ND	0.05	ppb	SW8081A
p,p-DDT	ND	0.01	ppb	SW8081A
Endrin aldehyde	ND	0.05	ppb	SW8081A

Environmental Technical Services Analysis Report

ID:	16	Event Date:	1/20/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond		CA
Project Name:	LRT First Annual Stormwater Sampling Event				
Sample Name:	LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12				
Sampler:	Helen Mawhinney	Sr. Environmental Consultant			
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.				

Sample Location: SW-11	Sample Time: 1/20/2012 12:20:00 PM
-------------------------------	---

Analyte	Result	Limit	UOM	Method
p,p-DDE	ND<0.050	0.01	ppb	SW8081A
Xylenes, Total	ND	0.5	ppb	SW8260B
p,p-DDD	ND<0.050	0.01	ppb	SW8081A
TPH-Diesel (C10-C23)	260	50	ppb	SW8015B
g-Chlordane	ND<0.25	0.05	ppb	SW8081A
α-Chlordane	ND<0.25	0.05	ppb	SW8081A
p,p-DDT	ND<0.050	0.01	ppb	SW8081A
Aluminum	2000	50	ppb	E200.7
Chlordane (Technical)	ND	0.1	ppb	SW8081A
Lead	18	0.5	ppb	E200.8
Dieldrin	ND<0.050	0.01	ppb	SW8081A
Endosulfan I	ND	0.02	ppb	SW8081A
Endosulfan II	ND	0.02	ppb	SW8081A
Endosulfan sulfate	ND	0.05	ppb	SW8081A
g-BHC	ND<0.10	0.02	ppb	SW8081A
Endrin aldehyde	ND	0.05	ppb	SW8081A
Endrin ketone	ND	0.05	ppb	SW8081A
Heptachlor	ND<0.050	0.01	ppb	SW8081A
Heptachlor epoxide	ND	0.01	ppb	SW8081A
Hexachlorobenzene	ND<2.5	0.5	ppb	SW8081A
Hexachlorocyclopentadiene	ND<5.0	1	ppb	SW8081A
Methoxychlor	ND<0.50	0.1	ppb	SW8081A
Endrin	ND<0.050	0.01	ppb	SW8081A
Copper	14	0.5	ppb	E200.8
Toluene	ND	0.5	ppb	SW8260B
Zinc	120	5	ppb	E200.8
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
pH	7.75	0.05	pH units @ °C	SM4500H+8
Ethylbenzene	ND	0.5	ppb	SW8260B
Vanadium	68	0.5	ppb	E200.8

Environmental Technical Services Analysis Report

	16	1/20/2012	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond CA
Project Name:	LRT First Annual Stormwater Sampling Event		
Sample Name:	LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12		
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.		

Sample Location: SW-11	Sample Time: 1/20/2012 12:20:00 PM			
Analyte	Result	Limit	UOM	Method
Benzene	ND	0.5	ppb	SW8260B
Hexane Extractable Material w/o Silica Gel Cleanup	ND	5	ppm	E1664A
TPH-Motor Oil (C18-C36)	640	250	ppb	SW8015B
d-BHC	ND<0.025	0.005	ppb	SW8081A
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Chemical Oxygen Demand	190	10	ppm	SM5220D
Iron	4000	50	ppb	E200.7
Organic Carbon, Total	3	0.3	ppm	E415.3
Toxaphene	ND<2.5	0.5	ppb	SW8081A
Specific Conductivity	2010	10	µmhos/cm@25°C	SM2510B
b-BHC	ND<0.025	0.005	ppb	SW8081A
Total Suspended Solids	220	1	ppm	SM2540D
a-BHC	ND<0.050	0.01	ppb	SW8081A
Aldrin	ND<0.025	0.005	ppb	SW8081A

Environmental Technical Services Analysis Report

16	Event Date: 1/20/2012	Customer: Levin Richmond Terminal
Site: 402 Wright Ave	Richmond	CA
Project Name: LRT First Annual Stormwater Sampling Event		
Sample Name: LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12		
Sampler: Helen Mawhinney	Title: Sr. Environmental Consultant	
Analytical Lab: McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description: Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.		

Sample Location: SW-12 **Sample Time:** 1/20/2012 12:40:00 PM

Analyte	Result	Limit	UOM	Method
Lead	4.3	0.5	ppb	E200.8
TPH-Diesel (C10-C23)	120	50	ppb	SW8015B
Benzene	ND	0.5	ppb	SW8260B
pH	7.86	0.05	pH units @ °C	SM4500H+8
Vanadium	8.5	0.5	ppb	E200.8
Total Suspended Solids	3.2	1	ppm	SM2540D
Organic Carbon, Total	9.1	0.3	ppm	E415.3
Specific Conductivity	136	10	µmhos/cm@25°C	SM2510B
Endosulfan I	ND<0.10	0.02	ppb	SW8081A
Chemical Oxygen Demand	17	10	ppm	SM5220D
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A
Methoxychlor	ND	0.1	ppb	SW8081A
Toxaphene	ND	0.5	ppb	SW8081A
Aldrin	ND	0.005	ppb	SW8081A
Ethylbenzene	ND	0.5	ppb	SW8260B
p,p-DDT	ND	0.01	ppb	SW8081A
Hexachlorobenzene	ND	0.5	ppb	SW8081A
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Aluminum	200	50	ppb	E200.7
TPH-Motor Oil (C18-C36)	ND	250	ppb	SW8015B
Copper	20	0.5	ppb	E200.8
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Zinc	57	5	ppb	E200.8
Hexane Extractable Material w/o Silica Gel Cleanup	ND	5	ppm	E1664A
Xylenes, Total	ND	0.5	ppb	SW8260B
Toluene	ND	0.5	ppb	SW8260B
Iron	520	50	ppb	E200.7
a-Chlordane	ND	0.05	ppb	SW8081A
a-BHC	ND	0.01	ppb	SW8081A
b-BHC	ND	0.005	ppb	SW8081A

Laboratory Analytical Report **16** **Event Date:** 1/20/2012 **Customer:** Levin Richmond Terminal

Environmental Technical Services Analysis Report

ID:	16	Event Date:	1/20/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave	Richmond	CA		
Project Name:	LRT First Annual Stormwater Sampling Event				
Sample Name:	LRT First Annual Sampling Event SW-1 thru SW-6 and SW-11, SW-12				
Sampler:	Helen Mawhinney	Sr. Environmental Consultant			
Analytical Lab:	McC Campbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Discrete samples taken from LRT stormwater interceptors SW-1 through SW-6 and SW-11 and SW-12, and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE and BTEX, Metals, pH, Specific Conductivity, TOC, TPHd, TPHmo, and Total Suspended Solids.				

Sample Location:	SW-12	Sample Time:	1/20/2012 12:40:00 PM
------------------	-------	--------------	-----------------------

Analyte	Result	Limit	UOM	Method
d-BHC	ND	0.005	ppb	SW8081A
g-BHC	ND	0.02	ppb	SW8081A
Chlordane (Technical)	ND<0.50	0.1	ppb	SW8081A
Heptachlor epoxide	ND<0.050	0.01	ppb	SW8081A
g-Chlordane	ND	0.05	ppb	SW8081A
p,p-DDD	ND	0.01	ppb	SW8081A
Endrin aldehyde	ND<0.25	0.05	ppb	SW8081A
Heptachlor	ND	0.01	ppb	SW8081A
Endrin ketone	ND<0.25	0.05	ppb	SW8081A
Dieldrin	ND	0.01	ppb	SW8081A
Endosulfan II	ND<0.10	0.02	ppb	SW8081A
Endosulfan sulfate	ND<0.25	0.05	ppb	SW8081A
Endrin	ND	0.01	ppb	SW8081A
p,p-DDE	ND	0.01	ppb	SW8081A

Environmental Technical Services Analysis Report

	44	Event Date: 2/7/2012	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond CA
Project Name:	LRT 2nd Annual Stormwater		
Sample Name:	LRT Second Annual Stormwater Sampling Event 2/7/12 SW-2, SW-4 - SW-6 (Discrete)		
Sampler:	Helen Mawhinney	Sr. Environmental Consultant	
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	Samples taken from SW-2, SW-4, SW-5 and SW-6 and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE, BTEX, Metals, pH, Specific Conductivity, TOC, TPH-Diesel, TPH mo, and TSS.		

Sample Location: SW-2 Sample Time: 2/7/2012 9:15:00 AM

Analyte	Result	Limit	UOM	Method
Methoxychlor	ND	0.1	ppb	SW8081A
Copper	14	0.5	ppb	E200.8
Lead	7.4	0.5	ppb	E200.8
TPH-Diesel (C10-C23)	75	50	ppb	SW8015B
TPH-Motor Oil (C18-C36)	ND	250	ppb	SW8015B
Toxaphene	ND	0.5	ppb	SW8081A
pH	7.76	0.05	pH units @ °C	SM4500H+8
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A
Hexachlorobenzene	ND	0.5	ppb	SW8081A
Heptachlor epoxide	ND	0.01	ppb	SW8081A
Heptachlor	ND	0.01	ppb	SW8081A
Endrin ketone	ND	0.05	ppb	SW8081A
Total Suspended Solids	73.5	1	ppm	SM2540D
Specific Conductivity	157	10	µmhos/cm @ 25°C	SM2510B
Aluminum	1200	50	ppb	E200.7
Iron	2200	50	ppb	E200.7
Chemical Oxygen Demand	46	10	ppm	SM5220D
Endrin aldehyde	ND	0.05	ppb	SW8081A
g-BHC	ND	0.02	ppb	SW8081A
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Benzene	ND	0.5	ppb	SW8260B
Ethylbenzene	ND	0.5	ppb	SW8260B
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Vanadium	11	0.5	ppb	E200.8
Zinc	77	5	ppb	E200.8
Organic Carbon, Total	5.3	0.3	ppm	E415.3
Chlordane (Technical)	ND	0.1	ppb	SW8081A
d-BHC	ND	0.005	ppb	SW8081A
Xylenes, Total	ND	0.5	ppb	SW8260B
b-BHC	ND	0.005	ppb	SW8081A

Laboratory Analytical Report 44 Event Date: 2/7/2012 Customer: Levin Richmond Terminal

Environmental Technical Services Analysis Report

	44	2/7/2012	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond CA
Project Name:	LRT 2nd Annual Stormwater		
Sample Name:	LRT Second Annual Stormwater Sampling Event 2/7/12 SW-2, SW-4 - SW-6 (Discrete)		
Sampler:	Helen Mawhinney	Sr. Environmental Consultant	
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	Samples taken from SW-2, SW-4, SW-5 and SW-6 and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE, BTEX, Metals, pH, Specific Conductivity, TOC, TPH-Diesel, TPH mo, and TSS.		

Sample Location: SW-2	Sample Time: 2/7/2012 9:15:00 AM			
Analyte	Result	Limit	UOM	Method
a-BHC	ND	0.01	ppb	SW8081A
Endrin	ND	0.01	ppb	SW8081A
Hexane Extractable Material w/o Silica Gel Cleanup	ND	5	ppm	E1664A
Aldrin	ND	0.005	ppb	SW8081A
Toluene	ND	0.5	ppb	SW8260B
g-Chlordane	ND	0.05	ppb	SW8081A
p,p-DDD	ND	0.01	ppb	SW8081A
p,p-DDE	ND	0.01	ppb	SW8081A
p,p-DDT	ND	0.01	ppb	SW8081A
Dieldrin	ND	0.01	ppb	SW8081A
Endosulfan I	ND	0.02	ppb	SW8081A
Endosulfan II	ND	0.02	ppb	SW8081A
Endosulfan sulfate	ND	0.05	ppb	SW8081A
a-Chlordane	ND	0.05	ppb	SW8081A

Environmental Technical Services Analysis Report

	44	2/7/2012	Customer: Levin Richmond Terminal
Site:	402 Wright Ave	Richmond	CA
Project Name:	LRT 2nd Annual Stormwater		
Sample Name:	LRT Second Annual Stormwater Sampling Event 2/7/12 SW-2, SW-4 - SW-6 (Discrete)		
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	Samples taken from SW-2, SW-4, SW-5 and SW-6 and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE, BTEX, Metals, pH, Specific Conductivity, TOC, TPH-Diesel, TPH mo, and TSS.		

Sample Location: SW-4		Sample Time: 2/7/2012 10:20:00 AM		
Analyte	Result	Limit	UOM	Method
Copper	6.8	0.5	ppb	E200.8
Benzene	ND	0.5	ppb	SW8260B
Toluene	ND	0.5	ppb	SW8260B
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Organic Carbon, Total	1.5	0.3	ppm	E415.3
Chemical Oxygen Demand	ND	10	ppm	SM5220D
Zinc	42	5	ppb	E200.8
pH	7.70	0.05	pH units @ °C	SM4500H+B
Total Suspended Solids	16.4	1	ppm	SM2540D
Ethylbenzene	ND	0.5	ppb	SW8260B
Iron	1300	50	ppb	E200.7
Methoxychlor	ND	0.1	ppb	SW8081A
Aluminum	770	50	ppb	E200.7
Lead	4.7	0.5	ppb	E200.8
Hexane Extractable Material w/o Silica Gel Cleanup	ND	5	ppm	E1664A
TPH-Motor Oil (C18-C36)	ND	250	ppb	SW8015B
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Endosulfan sulfate	ND	0.05	ppb	SW8081A
Aldrin	ND	0.005	ppb	SW8081A
a-BHC	ND	0.01	ppb	SW8081A
b-BHC	ND	0.005	ppb	SW8081A
d-BHC	ND	0.005	ppb	SW8081A
g-BHC	ND	0.02	ppb	SW8081A
Chlordane (Technical)	ND	0.1	ppb	SW8081A
a-Chlordane	ND	0.05	ppb	SW8081A
g-Chlordane	ND	0.05	ppb	SW8081A
p,p-DDD	ND	0.01	ppb	SW8081A
p,p-DDE	ND	0.01	ppb	SW8081A
p,p-DDT	ND	0.01	ppb	SW8081A
Dieldrin	ND	0.01	ppb	SW8081A

Environmental Technical Services Analysis Report

44	Event Date: 2/7/2012	Levin Richmond Terminal
Site:	402 Wright Ave	Richmond CA
Project Name:	LRT 2nd Annual Stormwater	
Sample Name:	LRT Second Annual Stormwater Sampling Event 2/7/12 SW-2, SW-4 - SW-6 (Discrete)	
Sampler:	Helen Mawhinney	Title: Sr. Environmental Consultant
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644	
Description:	Samples taken from SW-2, SW-4, SW-5 and SW-6 and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE, BTEX, Metals, pH, Specific Conductivity, TOC, TPH-Diesel, TPH mo, and TSS.	

Sample Location: SW-4	Sample Time: 2/7/2012 10:20:00 AM
-----------------------	-----------------------------------

Analyte	Result	Limit	UOM	Method
Xylenes, Total	ND	0.5	ppb	SW8260B
Endosulfan II	ND	0.02	ppb	SW8081A
Specific Conductivity	99.4	10	µmhos/cm @ 25°C	SM2510B
Endrin	ND	0.01	ppb	SW8081A
Endrin aldehyde	ND	0.05	ppb	SW8081A
Endrin ketone	ND	0.05	ppb	SW8081A
Heptachlor	ND	0.01	ppb	SW8081A
Heptachlor epoxide	ND	0.01	ppb	SW8081A
Hexachlorobenzene	ND	0.5	ppb	SW8081A
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A
Toxaphene	ND	0.5	ppb	SW8081A
TPH-Diesel (C10-C23)	ND	50	ppb	SW8015B
Vanadium	10	0.5	ppb	E200.8
Endosulfan I	ND	0.02	ppb	SW8081A

Environmental Technical Services Analysis Report

ID:	44	Event Date:	2/7/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond		CA
Project Name:	LRT 2nd Annual Stormwater				
Sample Name:	LRT Second Annual Stormwater Sampling Event 2/7/12 SW-2, SW-4 - SW-6 (Discrete)				
Sampler:	Helen Mawhinney		Sr. Environmental Consultant		
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Samples taken from SW-2, SW-4, SW-5 and SW-6 and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE, BTEX, Metals, pH, Specific Conductivity, TOC, TPH-Diesel, TPH mo, and TSS.				

Sample Location: SW-5 Sample Time: 2/7/2012 11:46:00 AM

Analyte	Result	Limit	UOM	Method
Xylenes, Total	ND	0.5	ppb	SW8260B
pH	7.50	0.05	pH units @ °C	SM4500H+8
Hexane Extractable Material w/o Silica Gel Cleanup	ND	5	ppm	E1664A
Aluminum	360	50	ppb	E200.7
Iron	830	50	ppb	E200.7
Zinc	78	5	ppb	E200.8
Chemical Oxygen Demand	13	10	ppm	SM5220D
Total Suspended Solids	15.4	1	ppm	SM2540D
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Vanadium	5.5	0.5	ppb	E200.8
Heptachlor epoxide	ND	0.01	ppb	SW8081A
Ethylbenzene	ND	0.5	ppb	SW8260B
Benzene	ND	0.5	ppb	SW8260B
Endrin	ND	0.01	ppb	SW8081A
Aldrin	ND	0.005	ppb	SW8081A
a-BHC	ND	0.01	ppb	SW8081A
b-BHC	ND	0.005	ppb	SW8081A
d-BHC	ND	0.005	ppb	SW8081A
g-BHC	ND	0.02	ppb	SW8081A
Chlordane (Technical)	ND	0.1	ppb	SW8081A
a-Chlordane	ND	0.05	ppb	SW8081A
g-Chlordane	ND	0.05	ppb	SW8081A
p,p-DDD	ND	0.01	ppb	SW8081A
p,p-DDE	ND	0.01	ppb	SW8081A
p,p-DDT	ND	0.01	ppb	SW8081A
Dieldrin	ND	0.01	ppb	SW8081A
Endosulfan I	ND	0.02	ppb	SW8081A
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A
Methoxychlor	ND	0.1	ppb	SW8081A

Laboratory Analytical Report 44 Event Date: 2/7/2012 Customer: Levin Richmond Terminal

Environmental Technical Services Analysis Report

ID:	44	Event Date:	2/7/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond		CA
Project Name:	LRT 2nd Annual Stormwater				
Sample Name:	LRT Second Annual Stormwater Sampling Event 2/7/12 SW-2, SW-4 - SW-6 (Discrete)				
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant		
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Samples taken from SW-2, SW-4, SW-5 and SW-6 and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE, BTEX, Metals, pH, Specific Conductivity, TOC, TPH-Diesel, TPH mo, and TSS.				

Sample Location: SW-5 Sample Time: 2/7/2012 11:46:00 AM

Analyte	Result	Limit	UOM	Method
Copper	24	0.5	ppb	E200.8
Organic Carbon, Total	3.8	0.3	ppm	E415.3
Toluene	ND	0.5	ppb	SW8260B
TPH-Diesel (C10-C23)	97	50	ppb	SW8015B
Endosulfan II	ND	0.02	ppb	SW8081A
Toxaphene	ND	0.5	ppb	SW8081A
Endosulfan sulfate	ND	0.05	ppb	SW8081A
Hexachlorobenzene	ND	0.5	ppb	SW8081A
Lead	8.2	0.5	ppb	E200.8
Heptachlor	ND	0.01	ppb	SW8081A
Endrin ketone	ND	0.05	ppb	SW8081A
Endrin aldehyde	ND	0.05	ppb	SW8081A
Specific Conductivity	106	10	µmhos/cm @ 25°C	SM2510B
TPH-Motor Oil (C18-C36)	ND	250	ppb	SW8015B

Environmental Technical Services Analysis Report

44	Event Date: 2/7/2012	Levin Richmond Terminal
Site:	402 Wright Ave	Richmond CA
Project Name:	LRT 2nd Annual Stormwater	
Sample Name:	LRT Second Annual Stormwater Sampling Event 2/7/12 SW-2, SW-4 - SW-6 (Discrete)	
Sampler:	Helen Mawhinney	Title: Sr. Environmental Consultant
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644	
Description:	Samples taken from SW-2, SW-4, SW-5 and SW-6 and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE, BTEX, Metals, pH, Specific Conductivity, TOC, TPH-Diesel, TPH mo, and TSS.	

Sample Location: SW-6 Sample Time: 2/7/2012 12:01:00 PM

Analyte	Result	Limit	UOM	Method
Lead	9.8	0.5	ppb	E200.8
Vanadium	5.6	0.5	ppb	E200.8
Total Suspended Solids	12.6	1	ppm	SM2540D
Zinc	160	5	ppb	E200.8
pH	7.59	0.05	pH units @ °C	SM4500H+8
Specific Conductivity	105	10	µmhos/cm @ 25°C	SM2510B
Organic Carbon, Total	3.9	0.3	ppm	E415.3
Dieldrin	ND	0.01	ppb	SW8081A
TPH-Motor Oil (C18-C36)	ND	250	ppb	SW8015B
TPH-Diesel (C10-C23)	80	50	ppb	SW8015B
b-BHC	ND	0.005	ppb	SW8081A
Endosulfan I	ND	0.02	ppb	SW8081A
p,p-DDT	ND	0.01	ppb	SW8081A
p,p-DDE	ND	0.01	ppb	SW8081A
p,p-DDD	ND	0.01	ppb	SW8081A
γ-Chlordane	ND	0.05	ppb	SW8081A
α-Chlordane	ND	0.05	ppb	SW8081A
Endosulfan sulfate	ND	0.05	ppb	SW8081A
γ-BHC	ND	0.02	ppb	SW8081A
δ-BHC	ND	0.005	ppb	SW8081A
Aldrin	ND	0.005	ppb	SW8081A
Hexane Extractable Material w/o Silica Gel Cleanup	ND	5	ppm	E1664A
Toluene	ND	0.5	ppb	SW8260B
Xylenes, Total	ND	0.5	ppb	SW8260B
Copper	21	0.5	ppb	E200.8
Endosulfan II	ND	0.02	ppb	SW8081A
Chlordane (Technical)	ND	0.1	ppb	SW8081A
Iron	770	50	ppb	E200.7
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
α-BHC	ND	0.01	ppb	SW8081A

Laboratory Analytical Report 44 Event Date: 2/7/2012 Levin Richmond Terminal

Environmental Technical Services Analysis Report

ID:	44	Event Date:	2/7/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond		CA
Project Name:	LRT 2nd Annual Stormwater				
Sample Name:	LRT Second Annual Stormwater Sampling Event 2/7/12 SW-2, SW-4 - SW-6 (Discrete)				
Sampler:	Helen Mawhinney		Sr. Environmental Consultant		
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Samples taken from SW-2, SW-4, SW-5 and SW-6 and analyzed for HEM, Pesticides, Alkali Metals, COD, TPHg, MTBE, BTEX, Metals, pH, Specific Conductivity, TOC, TPH-Diesel, TPH mo, and TSS.				

Sample Location:	SW-6	Sample Time:	2/7/2012 12:01:00 PM
------------------	------	--------------	----------------------

Analyte	Result	Limit	UOM	Method
Endrin	ND	0.01	ppb	SW8081A
Ethylbenzene	ND	0.5	ppb	SW8260B
Benzene	ND	0.5	ppb	SW8260B
Chemical Oxygen Demand	ND	10	ppm	SM5220D
Aluminum	360	50	ppb	E200.7
Heptachlor epoxide	ND	0.01	ppb	SW8081A
Endrin aldehyde	ND	0.05	ppb	SW8081A
Endrin ketone	ND	0.05	ppb	SW8081A
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Heptachlor	ND	0.01	ppb	SW8081A
Toxaphene	ND	0.5	ppb	SW8081A
Hexachlorobenzene	ND	0.5	ppb	SW8081A
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A
Methoxychlor	ND	0.1	ppb	SW8081A

Environmental Technical Services Analysis Report

ID:	57	3/14/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond	CA
Project Name:	LRT Annual March 2012			
Sample Name:	LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)			
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant	
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644			
Description:	LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.			

Sample Location: SW-1 Sample Time: 3/14/2012 7:40:00 AM

Analyte	Result	Limit	UOM	Method
Organic Carbon, Total	1.7	0.3	ppm	E415.3
Methoxychlor	ND	0.1	ppb	SW8081A/8104
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A/8103
Ethylbenzene	ND	0.5	ppb	SW8260B
Hexachlorobenzene	ND	0.5	ppb	SW8081A/8102
TPH-Diesel (C10-C23)	100	50	ppb	SW8015B
TPH-Motor Oil (C18-C36)	340	250	ppb	SW8015B
Toxaphene	ND	0.5	ppb	SW8081A/8105
Vanadium	2.5	0.5	ppb	E200.8
Aroclor 1242	ND	0.5	ppb	SW8081A/8109
Zinc	140	5	ppb	E200.8
Benzene	ND	0.5	ppb	SW8260B
Aroclor 1016	ND	0.5	ppb	SW8081A/8106
Copper	7.0	0.5	ppb	E200.8
Aroclor 1232	ND	0.5	ppb	SW8081A/8108
Heptachlor epoxide	ND	0.01	ppb	SW8081A/8101
Aroclor 1248	ND	0.5	ppb	SW8081A/8110
Specific Conductivity	38.8	10	µmhos/cm @ 25°C	SM2510B
Aroclor 1254	ND	0.5	ppb	SW8081A/8111
Aroclor 1260	ND	0.5	ppb	SW8081A/8112
PCBs, total	ND	0.5	ppb	SW8081A/8113
Iron	750	20	ppb	E200.7
Aluminum	250	50	ppb	E200.7
Aroclor 1221	ND	0.5	ppb	SW8081A/8107
p,p-DDT	ND	0.01	ppb	SW8081A/8092
a-BHC	ND	0.01	ppb	SW8081A/8083
b-BHC	ND	0.005	ppb	SW8081A/8084
Total Suspended Solids	23.4	1	ppm	SM2540D
d-BHC	ND	0.005	ppb	SW8081A/8085
g-BHC	ND	0.02	ppb	SW8081A/8086

Laboratory Analytical Report 57 3/14/2012 Levin Richmond Terminal

Environmental Technical Services Analysis Report

SA	57	3/14/2012	Customer:	Levin Richmond Terminal	
Site:	402 Wright Ave		Richmond	CA	
Project Name:	LRT Annual March 2012				
Sample Name:	LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)				
Sampler:	Helen Mawhinney		Sr. Environmental Consultant		
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.				

Sample Location: SW-1 **Sample Time:** 3/14/2012 7:40:00 AM

Analyte	Result	Limit	UOM	Method
Chemical Oxygen Demand	22	10	ppm	SM5220D
a-Chlordane	ND	0.05	ppb	SW8081A/8088
g-Chlordane	ND	0.05	ppb	SW8081A/8089
p,p-DDD	ND	0.01	ppb	SW8081A/8090
Lead	12	0.5	ppb	E200.8
p,p-DDE	ND	0.01	ppb	SW8081A/8091
Aldrin	ND	0.005	ppb	SW8081A/8082
Dieldrin	ND	0.01	ppb	SW8081A/8093
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Heptachlor	ND	0.01	ppb	SW8081A/8100
Endrin ketone	ND	0.05	ppb	SW8081A/8099
Endrin aldehyde	ND	0.05	ppb	SW8081A/8098
Endrin	ND	0.01	ppb	SW8081A/8097
Toluene	ND	0.5	ppb	SW8260B
Hexane Extractable Material w/ Silica Gel Cleanup	ND	5	ppm	E1664A
Xylenes, Total	ND	0.5	ppb	SW8260B
Endosulfan I	ND	0.02	ppb	SW8081A/8094
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Endosulfan sulfate	ND	0.05	ppb	SW8081A/8096
Endosulfan II	ND	0.02	ppb	SW8081A/8095
Chlordane (Technical)	ND	0.1	ppb	SW8081A/8087

Laboratory Analytical Report 57 **Event Date:** 3/14/2012 **Customer:** Levin Richmond Terminal

Environmental Technical Services Analysis Report

57	Event Date: 3/14/2012	Customer: Levin Richmond Terminal
Site: 402 Wright Ave	Richmond	CA
Project Name: LRT Annual March 2012		
Sample Name: LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)		
Sampler: Helen Mawhinney	Title: Sr. Environmental Consultant	
Analytical Lab: McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description: LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.		

Sample Location: SW-2	Sample Time: 3/14/2012 7:10:00 AM
------------------------------	--

Analyte	Result	Limit	UOM	Method
Heptachlor epoxide	ND	0.01	ppb	SW8081A/8101
TPH-Motor Oil (C18-C36)	ND	250	ppb	SW8015B
TPH-Diesel (C10-C23)	58	50	ppb	SW8015B
Organic Carbon, Total	1.5	0.3	ppm	E415.3
Total Suspended Solids	191	1	ppm	SM2540D
g-BHC	ND	0.02	ppb	SW8081A/8086
Aroclor1254	ND	0.5	ppb	SW8081A/8111
Hexachlorobenzene	ND	0.5	ppb	SW8081A/8102
Methoxychlor	ND	0.1	ppb	SW8081A/8104
Toxaphene	ND	0.5	ppb	SW8081A/8105
Aroclor1016	ND	0.5	ppb	SW8081A/8106
Aroclor1221	ND	0.5	ppb	SW8081A/8107
Aroclor1232	ND	0.5	ppb	SW8081A/8108
Toluene	ND	0.5	ppb	SW8260B
Aroclor1248	ND	0.5	ppb	SW8081A/8110
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A/8103
Aroclor1260	ND	0.5	ppb	SW8081A/8112
PCBs, total	ND	0.5	ppb	SW8081A/8113
Aluminum	2400	50	ppb	E200.7
Chemical Oxygen Demand	210	10	ppm	SM5220D
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Benzene	ND	0.5	ppb	SW8260B
Ethylbenzene	ND	0.5	ppb	SW8260B
Aroclor1242	ND	0.5	ppb	SW8081A/8109
p,p-DDE	ND	0.01	ppb	SW8081A/8091
d-BHC	ND	0.005	ppb	SW8081A/8085
b-BHC	ND	0.005	ppb	SW8081A/8084
a-BHC	ND	0.01	ppb	SW8081A/8083
Aldrin	ND	0.005	ppb	SW8081A/8082
Iron	5600	20	ppb	E200.7

Environmental Technical Services Analysis Report

Site:	402 Wright Ave	Customer:	Levin Richmond Terminal
Project Name:	LRT Annual March 2012		
Sample Name:	LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)		
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.		

Sample Location: SW-2	Sample Time: 3/14/2012 7:10:00 AM
------------------------------	--

Analyte	Result	Limit	UOM	Method
Chlordane (Technical)	ND	0.1	ppb	SW8081A/8087
a-Chlordane	ND	0.05	ppb	SW8081A/8088
Specific Conductivity	76.0	10	µmhos/cm @ 25°C	SM2510B
p,p-DDD	ND	0.01	ppb	SW8081A/8090
Endrin ketone	ND	0.05	ppb	SW8081A/8099
p,p-DDT	ND	0.01	ppb	SW8081A/8092
Dieldrin	ND	0.01	ppb	SW8081A/8093
Endosulfan I	ND	0.02	ppb	SW8081A/8094
Endosulfan II	ND	0.02	ppb	SW8081A/8095
Endosulfan sulfate	ND	0.05	ppb	SW8081A/8096
Endrin	ND	0.01	ppb	SW8081A/8097
Heptachlor	ND	0.01	ppb	SW8081A/8100
g-Chlordane	ND	0.05	ppb	SW8081A/8089
Endrin aldehyde	ND	0.05	ppb	SW8081A/8098
Hexane Extractable Material w/ Silica Gel Cleanup	ND	5	ppm	E1664A
Copper	9.5	0.5	ppb	E200.8
Lead	12	0.5	ppb	E200.8
Vanadium	24	0.5	ppb	E200.8
Zinc	100	5	ppb	E200.8
Xylenes, Total	ND	0.5	ppb	SW8260B
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B

Environmental Technical Services Analysis Report

	57	3/14/2012	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond CA
Project Name:	LRT Annual March 2012		
Sample Name:	LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)		
Sampler:	Helen Mawhinney	Sr. Environmental Consultant	
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.		

Sample Location: SW-3	Sample Time: 3/14/2012 2:10:00 PM
-----------------------	-----------------------------------

Analyte	Result	Limit	UOM	Method
Zinc	260	5	ppb	E200.8
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
TPH-Diesel (C10-C23)	ND	50	ppb	SW8015B
Hexane Extractable Material w/ Silica Gel Cleanup	ND	5	ppm	E1664A
PCBs, total	ND	0.5	ppb	SW8081A/8113
Aroclor1260	ND	0.5	ppb	SW8081A/8112
Aroclor1254	ND	0.5	ppb	SW8081A/8111
Aroclor1248	ND	0.5	ppb	SW8081A/8110
Copper	18	0.5	ppb	E200.8
Lead	15	0.5	ppb	E200.8
Iron	1900	20	ppb	E200.7
Vanadium	10	0.5	ppb	E200.8
Aroclor1232	ND	0.5	ppb	SW8081A/8108
Xylenes, Total	ND	0.5	ppb	SW8260B
Aroclor1242	ND	0.5	ppb	SW8081A/8109
TPH-Motor Oil (C18-C36)	ND	250	ppb	SW8015B
Heptachlor epoxide	ND	0.01	ppb	SW8081A/8101
Hexachlorobenzene	ND	0.5	ppb	SW8081A/8102
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A/8103
Methoxychlor	ND	0.1	ppb	SW8081A/8104
Toxaphene	ND	0.5	ppb	SW8081A/8105
Aroclor1016	ND	0.5	ppb	SW8081A/8106
Aroclor1221	ND	0.5	ppb	SW8081A/8107
Organic Carbon, Total	1.6	0.3	ppm	E415.3
Aluminum	320	50	ppb	E200.7
g-Chlordane	ND	0.05	ppb	SW8081A/8089
p,p-DDE	ND	0.01	ppb	SW8081A/8091
p,p-DDT	ND	0.01	ppb	SW8081A/8092
Toluene	ND	0.5	ppb	SW8260B
Dieldrin	ND	0.01	ppb	SW8081A/8093

Laboratory Analytical Report	57	Event Date: 3/14/2012	Customer: Levin Richmond Terminal
------------------------------	----	-----------------------	-----------------------------------

Environmental Technical Services Analysis Report

	57	3/14/2012	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond CA
Project Name:	LRT Annual March 2012		
Sample Name:	LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)		
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.		

Sample Location: SW-3	Sample Time: 3/14/2012 2:10:00 PM
-----------------------	-----------------------------------

Analyte	Result	Limit	UOM	Method
Chlordane (Technical)	ND	0.1	ppb	SW8081A/8087
Endosulfan II	ND	0.02	ppb	SW8081A/8095
a-Chlordane	ND	0.05	ppb	SW8081A/8088
Aldrin	ND	0.005	ppb	SW8081A/8082
Heptachlor	ND	0.01	ppb	SW8081A/8100
Endrin ketone	ND	0.05	ppb	SW8081A/8099
Endosulfan sulfate	ND	0.05	ppb	SW8081A/8096
Endrin	ND	0.01	ppb	SW8081A/8097
Endrin aldehyde	ND	0.05	ppb	SW8081A/8098
Endosulfan I	ND	0.02	ppb	SW8081A/8094
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
d-BHC	ND	0.005	ppb	SW8081A/8085
a-BHC	ND	0.01	ppb	SW8081A/8083
Ethylbenzene	ND	0.5	ppb	SW8260B
b-BHC	ND	0.005	ppb	SW8081A/8084
Chemical Oxygen Demand	43	10	ppm	SM5220D
Total Suspended Solids	153	1	ppm	SM2540D
g-BHC	ND	0.02	ppb	SW8081A/8086
p,p-DDD	ND	0.01	ppb	SW8081A/8090
Specific Conductivity	178	10	µmhos/cm @ 25°C	SM2510B
Benzene	ND	0.5	ppb	SW8260B

Environmental Technical Services Analysis Report

Site:	402 Wright Ave	Richmond	CA
Project Name:	LRT Annual March 2012		
Sample Name:	LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)		
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.		

Sample Location: SW-4 **Sample Time:** 3/14/2012 1:05:00 PM

Analyte	Result	Limit	UOM	Method
p,p-DDD	ND	0.01	ppb	SW8081A/8090
g-Chlordane	ND	0.05	ppb	SW8081A/8089
g-BHC	ND	0.02	ppb	SW8081A/8086
α-Chlordane	ND	0.05	ppb	SW8081A/8088
Chlordane (Technical)	ND	0.1	ppb	SW8081A/8087
Aroclor 1260	ND	0.5	ppb	SW8081A/8112
Aroclor 1254	ND	0.5	ppb	SW8081A/8111
p,p-DDE	ND	0.01	ppb	SW8081A/8091
Endrin aldehyde	ND	0.05	ppb	SW8081A/8098
PCBs, total	ND	0.5	ppb	SW8081A/8113
Vanadium	5.5	0.5	ppb	E200.8
Aroclor 1248	ND	0.5	ppb	SW8081A/8110
Aroclor 1242	ND	0.5	ppb	SW8081A/8109
Aroclor 1232	ND	0.5	ppb	SW8081A/8108
Aroclor 1221	ND	0.5	ppb	SW8081A/8107
Aroclor 1016	ND	0.5	ppb	SW8081A/8106
Toxaphene	ND	0.5	ppb	SW8081A/8105
Methoxychlor	ND	0.1	ppb	SW8081A/8104
Endosulfan sulfate	ND	0.05	ppb	SW8081A/8096
Hexachlorobenzene	ND	0.5	ppb	SW8081A/8102
p,p-DDT	ND	0.01	ppb	SW8081A/8092
d-BHC	ND	0.005	ppb	SW8081A/8085
Heptachlor	ND	0.01	ppb	SW8081A/8100
Endrin ketone	ND	0.05	ppb	SW8081A/8099
Endrin	ND	0.01	ppb	SW8081A/8097
Heptachlor epoxide	ND	0.01	ppb	SW8081A/8101
Endosulfan II	ND	0.02	ppb	SW8081A/8095
Endosulfan I	ND	0.02	ppb	SW8081A/8094
Dieldrin	ND	0.01	ppb	SW8081A/8093
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A/8103

Laboratory Analytical Report **57** **3/14/2012** **Customer:** Levin Richmond Terminal

Environmental Technical Services Analysis Report

ID:	57	Date:	3/14/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond		CA
Project Name:	LRT Annual March 2012				
Sample Name:	LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)				
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant		
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.				

Sample Location: SW-4	Sample Time: 3/14/2012 1:05:00 PM
------------------------------	--

Analyte	Result	Limit	UOM	Method
TPH-Motor Oil (C18-C36)	ND	250	ppb	SW8015B
Total Suspended Solids	29.0	1	ppm	SM2540D
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Chemical Oxygen Demand	12	10	ppm	SM5220D
Benzene	ND	0.5	ppb	SW8260B
Ethylbenzene	ND	0.5	ppb	SW8260B
Toluene	ND	0.5	ppb	SW8260B
Xylenes, Total	ND	0.5	ppb	SW8260B
Specific Conductivity	76.5	10	µmhos/cm @ 25°C	SM2510B
Hexane Extractable Material w/ Silica Gel Cleanup	ND	5	ppm	E1664A
b-BHC	ND	0.005	ppb	SW8081A/8084
TPH-Diesel (C10-C23)	ND	50	ppb	SW8015B
Organic Carbon, Total	1.6	0.3	ppm	E415.3
Copper	22	0.5	ppb	E200.8
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Aluminum	600	50	ppb	E200.7
Lead	17	0.5	ppb	E200.8
Iron	2300	20	ppb	E200.7
Zinc	77	5	ppb	E200.8
Aldrin	ND	0.005	ppb	SW8081A/8082
a-BHC	ND	0.01	ppb	SW8081A/8083

Environmental Technical Services Analysis Report

57	Event Date: 3/14/2012	Customer: Levin Richmond Terminal
Site:	402 Wright Ave Richmond CA	
Project Name:	LRT Annual March 2012	
Sample Name:	LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)	
Sampler:	Helen Mawhinney	Title: Sr. Environmental Consultant
Analytical Lab:	McC Campbell Analytical Labs, Inc. DHS ELSAP Cert No 1644	
Description:	LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.	

Sample Location: SW-5	Sample Time: 3/14/2012 1:15:00 PM			
Analyte	Result	Limit	UOM	Method
Endrin ketone	ND	0.05	ppb	SW8081A/8099
Toxaphene	ND	0.5	ppb	SW8081A/8105
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A/8103
Hexachlorobenzene	ND	0.5	ppb	SW8081A/8102
Heptachlor	ND	0.01	ppb	SW8081A/8100
Endrin aldehyde	ND	0.05	ppb	SW8081A/8098
Endrin	ND	0.01	ppb	SW8081A/8097
Endosulfan sulfate	ND	0.05	ppb	SW8081A/8096
Heptachlor epoxide	ND	0.01	ppb	SW8081A/8101
Aroclor 1221	ND	0.5	ppb	SW8081A/8107
Aroclor 1232	ND	0.5	ppb	SW8081A/8108
Aroclor 1242	ND	0.5	ppb	SW8081A/8109
Aroclor 1248	ND	0.5	ppb	SW8081A/8110
Aroclor 1254	ND	0.5	ppb	SW8081A/8111
Aroclor 1260	ND	0.5	ppb	SW8081A/8112
PCBs, total	ND	0.5	ppb	SW8081A/8113
Endosulfan II	ND	0.02	ppb	SW8081A/8095
Methoxychlor	ND	0.1	ppb	SW8081A/8104
Aluminum	380	50	ppb	E200.7
Hexane Extractable Material w/ Silica Gel Cleanup	ND	5	ppm	E1664A
TPH-Diesel (C10-C23)	ND	50	ppb	SW8015B
Lead	13	0.5	ppb	E200.8
Vanadium	4.0	0.5	ppb	E200.8
Zinc	61	5	ppb	E200.8
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Xylenes, Total	ND	0.5	ppb	SW8260B
Endosulfan I	ND	0.02	ppb	SW8081A/8094
Aroclor 1016	ND	0.5	ppb	SW8081A/8106
Iron	1300	20	ppb	E200.7
Specific Conductivity	34.8	10	µmhos/cm @ 25°C	SM2510B

Environmental Technical Services Analysis Report

ID:	57	3/14/2012	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond CA
Project Name:	LRT Annual March 2012		
Sample Name:	LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)		
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.		

Sample Location: SW-5		Sample Time: 3/14/2012 1:15:00 PM		
Analyte	Result	Limit	UOM	Method
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Copper	25	0.5	ppb	E200.8
Benzene	ND	0.5	ppb	SW8260B
Chemical Oxygen Demand	12	10	ppm	SM5220D
TPH-Motor Oil (C18-C36)	370	250	ppb	SW8015B
Total Suspended Solids	26.0	1	ppm	SM2540D
g-Chlordane	ND	0.05	ppb	SW8081A/8089
a-Chlordane	ND	0.05	ppb	SW8081A/8088
Chlordane (Technical)	ND	0.1	ppb	SW8081A/8087
Organic Carbon, Total	2.2	0.3	ppm	E415.3
Ethylbenzene	ND	0.5	ppb	SW8260B
p,p-DDD	ND	0.01	ppb	SW8081A/8090
d-BHC	ND	0.005	ppb	SW8081A/8085
g-BHC	ND	0.02	ppb	SW8081A/8086
p,p-DDT	ND	0.01	ppb	SW8081A/8092
Dieldrin	ND	0.01	ppb	SW8081A/8093
b-BHC	ND	0.005	ppb	SW8081A/8084
a-BHC	ND	0.01	ppb	SW8081A/8083
Aldrin	ND	0.005	ppb	SW8081A/8082
Toluene	ND	0.5	ppb	SW8260B
p,p-DDE	ND	0.01	ppb	SW8081A/8091

Environmental Technical Services Analysis Report

ID:	57	3/14/2012	Levin Richmond Terminal
Site:	402 Wright Ave	Richmond	CA
Project Name:	LRT Annual March 2012		
Sample Name:	LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)		
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.		

Sample Location: SW-6		Sample Time: 3/14/2012 1:25:00 PM		
Analyte	Result	Limit	UOM	Method
Copper	52	0.5	ppb	E200.8
Vanadium	3.1	0.5	ppb	E200.8
Zinc	78	5	ppb	E200.8
Specific Conductivity	42.6	10	µmhos/cm @ 25°C	SM2510B
PCBs, total	ND	0.5	ppb	SW8081A/8113
Lead	27	0.5	ppb	E200.8
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Xylenes, Total	ND	0.5	ppb	SW8260B
Toluene	ND	0.5	ppb	SW8260B
Ethylbenzene	ND	0.5	ppb	SW8260B
Benzene	ND	0.5	ppb	SW8260B
Aluminum	190	50	ppb	E200.7
Aroclor 1254	ND	0.5	ppb	SW8081A/8111
Chemical Oxygen Demand	ND	10	ppm	SM5220D
Aroclor 1248	ND	0.5	ppb	SW8081A/8110
Hexane Extractable Material w/ Silica Gel Cleanup	ND	5	ppm	E1664A
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Iron	360	20	ppb	E200.7
b-BHC	ND	0.005	ppb	SW8081A/8084
Dieldrin	ND	0.01	ppb	SW8081A/8093
p,p-DDT	0.012	0.01	ppb	SW8081A/8092
p,p-DDE	0.012	0.01	ppb	SW8081A/8091
p,p-DDD	ND	0.01	ppb	SW8081A/8090
γ-Chlordane	ND	0.05	ppb	SW8081A/8089
Chlordane (Technical)	ND	0.1	ppb	SW8081A/8087
Endosulfan I	ND	0.02	ppb	SW8081A/8094
d-BHC	ND	0.005	ppb	SW8081A/8085
α-Chlordane	ND	0.05	ppb	SW8081A/8088
α-BHC	ND	0.01	ppb	SW8081A/8083
Aldrin	ND	0.005	ppb	SW8081A/8082

Laboratory Analytical Report **57** Event Date: 3/14/2012 Customer: Levin Richmond Terminal

Environmental Technical Services Analysis Report

ID:	57	3/14/2012	Levin Richmond Terminal
Site:	402 Wright Ave Richmond CA		
Project Name:	LRT Annual March 2012		
Sample Name:	LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)		
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.		

Sample Location: SW-6	Sample Time: 3/14/2012 1:25:00 PM			
Analyte	Result	Limit	UOM	Method
Organic Carbon, Total	1.8	0.3	ppm	E415.3
TPH-Diesel (C10-C23)	ND	50	ppb	SW8015B
TPH-Motor Oil (C18-C36)	ND	250	ppb	SW8015B
Total Suspended Solids	7.00	1	ppm	SM2540D
Aroclor1260	ND	0.5	ppb	SW8081A/8112
Aroclor1232	ND	0.5	ppb	SW8081A/8108
g-BHC	ND	0.02	ppb	SW8081A/8086
Aroclor1242	ND	0.5	ppb	SW8081A/8109
Endosulfan II	ND	0.02	ppb	SW8081A/8095
Aroclor1221	ND	0.5	ppb	SW8081A/8107
Aroclor1016	ND	0.5	ppb	SW8081A/8106
Toxaphene	ND	0.5	ppb	SW8081A/8105
Methoxychlor	ND	0.1	ppb	SW8081A/8104
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A/8103
Endrin	ND	0.01	ppb	SW8081A/8097
Hexachlorobenzene	ND	0.5	ppb	SW8081A/8102
Endosulfan sulfate	ND	0.05	ppb	SW8081A/8096
Endrin aldehyde	ND	0.05	ppb	SW8081A/8098
Endrin ketone	ND	0.05	ppb	SW8081A/8099
Heptachlor	ND	0.01	ppb	SW8081A/8100
Heptachlor epoxide	ND	0.01	ppb	SW8081A/8101

Environmental Technical Services Analysis Report

ID:	57	Event Date:	3/14/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond	CA	
Project Name:	LRT Annual March 2012				
Sample Name:	LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)				
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant		
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.				

Sample Location: S PARR SW-11	Sample Time: 3/14/2012 2:45:00 PM			
Analyte	Result	Limit	UOM	Method
Iron	1200	20	ppb	E200.7
TPH-Diesel (C10-C23)	150	50	ppb	SW8015B
Total Suspended Solids	165	1	ppm	SM2540D
d-BHC	ND	0.005	ppb	SW8081A/8085
g-BHC	ND	0.02	ppb	SW8081A/8086
Benzene	ND	0.5	ppb	SW8260B
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Xylenes, Total	ND	0.5	ppb	SW8260B
Hexane Extractable Material w/ Silica Gel Cleanup	ND	5	ppm	E1664A
Aluminum	600	50	ppb	E200.7
a-Chlordane	ND	0.05	ppb	SW8081A/8088
Chlordane (Technical)	ND	0.1	ppb	SW8081A/8087
g-Chlordane	ND	0.05	ppb	SW8081A/8089
Toluene	ND	0.5	ppb	SW8260B
TPH-Motor Oil (C18-C36)	460	250	ppb	SW8015B
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Organic Carbon, Total	2.5	0.3	ppm	E415.3
Specific Conductivity	159	10	µmhos/cm @ 25°C	SM2510B
Copper	11	0.5	ppb	E200.8
Lead	5.0	0.5	ppb	E200.8
Vanadium	66	0.5	ppb	E200.8
Zinc	46	5	ppb	E200.8
b-BHC	ND	0.005	ppb	SW8081A/8084
a-BHC	ND	0.01	ppb	SW8081A/8083
Aldrin	ND	0.005	ppb	SW8081A/8082
Ethylbenzene	ND	0.5	ppb	SW8260B
Aroclor 1221	ND	0.5	ppb	SW8081A/8107
Endrin	ND	0.01	ppb	SW8081A/8097
Endrin aldehyde	ND	0.05	ppb	SW8081A/8098
Endrin ketone	ND	0.05	ppb	SW8081A/8099

Laboratory Analytical Report ID: 57 Event Date: 3/14/2012 Customer: Levin Richmond Terminal

Environmental Technical Services Analysis Report

57	Event Date: 3/14/2012	Levin Richmond Terminal
Site: 402 Wright Ave	Richmond	CA
Project Name: LRT Annual March 2012		
Sample Name: LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)		
Sampler: Helen Mawhinney	Title: Sr. Environmental Consultant	
Analytical Lab: McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description: LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.		

Sample Location: S PARR SW-11 **Sample Time:** 3/14/2012 2:45:00 PM

Analyte	Result	Limit	UOM	Method
Heptachlor	ND	0.01	ppb	SW8081A/8100
Hexachlorobenzene	ND	0.5	ppb	SW8081A/8102
Methoxychlor	ND	0.1	ppb	SW8081A/8104
Endosulfan sulfate	ND	0.05	ppb	SW8081A/8096
Aroclor1016	ND	0.5	ppb	SW8081A/8106
Heptachlor epoxide	ND	0.01	ppb	SW8081A/8101
Aroclor1232	ND	0.5	ppb	SW8081A/8108
Aroclor1242	ND	0.5	ppb	SW8081A/8109
Aroclor1248	ND	0.5	ppb	SW8081A/8110
Aroclor1254	ND	0.5	ppb	SW8081A/8111
Aroclor1260	ND	0.5	ppb	SW8081A/8112
PCBs, total	ND	0.5	ppb	SW8081A/8113
Toxaphene	ND	0.5	ppb	SW8081A/8105
Endosulfan I	ND	0.02	ppb	SW8081A/8094
p,p-DDD	ND	0.01	ppb	SW8081A/8090
Chemical Oxygen Demand	200	10	ppm	SM5220D
p,p-DDE	ND	0.01	ppb	SW8081A/8091
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A/8103
p,p-DDT	ND	0.01	ppb	SW8081A/8092
Dieldrin	ND	0.01	ppb	SW8081A/8093
Endosulfan II	ND	0.02	ppb	SW8081A/8095

Environmental Technical Services Analysis Report

	57	3/14/2012	Customer: Levin Richmond Terminal
Site:	402 Wright Ave Richmond CA		
Project Name:	LRT Annual March 2012		
Sample Name:	LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)		
Sampler:	Helen Mawhinney	Sr. Environmental Consultant	
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.		

Sample Location: N PARR SW-12	Sample Time: 3/14/2012 3:10:00 PM			
Analyte	Result	Limit	UOM	Method
Hexachlorobenzene	ND	0.5	ppb	SW8081A/8102
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A/8103
Endrin	ND	0.01	ppb	SW8081A/8097
Zinc	57	5	ppb	E200.8
Toxaphene	ND	0.5	ppb	SW8081A/8105
Vanadium	6.0	0.5	ppb	E200.8
Heptachlor epoxide	ND	0.01	ppb	SW8081A/8101
Heptachlor	ND	0.01	ppb	SW8081A/8100
Endrin ketone	ND	0.05	ppb	SW8081A/8099
Iron	740	20	ppb	E200.7
Endrin aldehyde	ND	0.05	ppb	SW8081A/8098
Endosulfan sulfate	ND	0.05	ppb	SW8081A/8096
Endosulfan II	ND	0.02	ppb	SW8081A/8095
Aroclor1016	ND	0.5	ppb	SW8081A/8106
Dieldrin	ND	0.01	ppb	SW8081A/8093
Aroclor1248	ND	0.5	ppb	SW8081A/8110
p,p-DDT	ND	0.01	ppb	SW8081A/8092
p,p-DDE	ND	0.01	ppb	SW8081A/8091
p,p-DDD	ND	0.01	ppb	SW8081A/8090
g-Chlordane	ND	0.05	ppb	SW8081A/8089
a-Chlordane	ND	0.05	ppb	SW8081A/8088
Chlordane (Technical)	ND	0.1	ppb	SW8081A/8087
Endosulfan I	ND	0.02	ppb	SW8081A/8094
PCBs, total	ND	0.5	ppb	SW8081A/8113
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B
Xylenes, Total	ND	0.5	ppb	SW8260B
Toluene	ND	0.5	ppb	SW8260B
Ethylbenzene	ND	0.5	ppb	SW8260B
Benzene	ND	0.5	ppb	SW8260B
Specific Conductivity	64.4	10	µmhos/cm @ 25°C	SM2510B

Environmental Technical Services Analysis Report

57	Event Date: 3/14/2012	Customer: Levin Richmond Terminal
Site:	402 Wright Ave	Richmond CA
Project Name:	LRT Annual March 2012	
Sample Name:	LRT Annual March 2012 SW-1 through SW-6, S PARR SW-11 and N PARR SW-12 (discrete)	
Sampler:	Helen Mawhinney	Title: Sr. Environmental Consultant
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644	
Description:	LRT annual report sampling from SW-1 through SW-6 and S PARR SW-11 and N PARR SW-12 on 3/14/2012 and analyzed for TPH (Oil and Grease), Specific Conductivity, TOC, Pesticides, COD, TPHg, BTEX, MTBE, Metals, TSS, and TPHMO.	

Sample Location: N PARR SW-12 **Sample Time:** 3/14/2012 3:10:00 PM

Analyte	Result	Limit	UOM	Method
TPH-Diesel (C10-C23)	ND	50	ppb	SW8015B
TPH-Motor Oil (C18-C36)	ND	250	ppb	SW8015B
Methoxychlor	ND	0.1	ppb	SW8081A/8104
Chemical Oxygen Demand	22	10	ppm	SM5220D
g-BHC	ND	0.02	ppb	SW8081A/8086
Aroclor 1221	ND	0.5	ppb	SW8081A/8107
Lead	7.3	0.5	ppb	E200.8
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B
Aroclor 1260	ND	0.5	ppb	SW8081A/8112
Aroclor 1254	ND	0.5	ppb	SW8081A/8111
Organic Carbon, Total	4.5	0.3	ppm	E415.3
Aroclor 1242	ND	0.5	ppb	SW8081A/8109
Total Suspended Solids	11.4	1	ppm	SM2540D
Hexane Extractable Material w/ Silica Gel Cleanup	ND	5	ppm	E1664A
Aroclor 1232	ND	0.5	ppb	SW8081A/8108
Copper	7.8	0.5	ppb	E200.8
Aluminum	350	50	ppb	E200.7
b-BHC	ND	0.005	ppb	SW8081A/8084
a-BHC	ND	0.01	ppb	SW8081A/8083
Aldrin	ND	0.005	ppb	SW8081A/8082
d-BHC	ND	0.005	ppb	SW8081A/8085

Attachment C – Analytical Results Continued

**Discharge To Sanitary Sewer
Stormwater Systems Cleanout
Sampling Events**

October 5, 2011

November 29, 2011

January 25, 2012

March 29, 2012

April 5, 2012

Environmental Technical Services Analysis Report

	39	10/5/2011	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond CA
Project Name:	Discharge 10/05/11		
Sample Name:	Sample taken from SW1 through SW7 on 10/5/11.		
Sampler:	Helen Mawhinney	Sr. Environmental Consultant	
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	Discrete samples taken from LRT stormwater interceptors SW1 through SW7, composited at the lab, and analyzed for HEMSGT, BTEX, Alkali Metals, Metals, Specific Conductivity, and TSS.		

Sample Location: SW-1 - SW-7		Sample Time: 10/5/2011		
Analyte	Result	Limit	UOM	Method
Specific Conductivity	594	10	µmhos/cm @ 25°C	E120.1
Aluminum	4900	50	ppb	E200.7
Iron	9200	50	ppb	E200.7
Copper	42	0.5	ppb	E200.8
Lead	61	0.5	ppb	E200.8
Nickel	17	0.5	ppb	E200.8
Xylenes, Total	ND	0.5	ppb	E624
Zinc	390	5	ppb	E200.8
Total Suspended Solids	170	1	ppm	SM2540D
Vanadium	28	0.5	ppb	E200.8
Toluene	ND	0.5	ppb	E624
Benzene	ND	0.5	ppb	E624
Hexane Extractable Material w/ Silica Gel Cleanup	ND	5	ppm	E1664A
Ethylbenzene	ND	0.5	ppb	E624

Environmental Technical Services Analysis Report

ID:	23	Event Date:	11/29/2011	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond		CA
Project Name:	LRTD Discharge Nov 2011				
Sample Name:	LRT Interceptor discharge sample from SW-1 through SW-7 taken on 11/29/2011.				
Sampler:	Helen Mawhinney		Title:	Sr. Environmental Consultant	
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Composite sample taken from LRT stormwater interceptors SW1 through SW7 and analyzed for HEMSGT, BTEX, BOD, Metals, pH, Specific Conductivity, and TSS.				

Sample Location: SW1 - SW7		Sample Time: 11/29/2011			
Analyte	Result	Limit	UOM	Method	
Toluene	ND	0.5	ppb	E602	
Total Suspended Solids	47.6	1	ppm	SM2540D	
Biological Oxygen Demand	ND	4	ppm	SM5210B	
Nickel	4.9	0.5	ppb	E200.8	
Copper	24	0.5	ppb	E200.8	
Ethylbenzene	ND	0.5	ppb	E602	
Lead	28	0.1	ppm	SW6020	
Specific Conductivity	3950	10	µmhos/cm @ 25°C	E120.1	
Zinc	170	5	ppb	E200.8	
Benzene	ND	0.5	ppb	E602	
Hexane Extractable Material w/ Silica Gel Cleanup	ND	5	ppm	E1664A	
Toluene	ND	0.5	ppb	E602	
pH	7.28	0.05	pH units @ °C	SM4500H+8	

Environmental Technical Services Analysis Report

ID:	17	Date:	1/25/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond	CA	
Project Name:	Discharge Levin Rich Terminal Municipal				
Sample Name:	LRT Municipal discharge composite sample SW1 - SW7				
Sampler:	Helen Mawhinney		Sr. Environmental Consultant		
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Samples taken from LRT stormwater interceptors SW1 through SW7, composited and analyzed for HEM, BTEX, BOD, Metals, pH, Specific Conductivity, and TSS.				

Sample Location: SW1-SW7	Sample Time:	1/25/2012		
Analyte	Result	Limit	UOM	Method
Xylenes, Total	ND	0.5	ppb	E602
Copper	17	0.5	ppb	E200.8
Nickel	4.9	0.5	ppb	E200.8
Zinc	170	5	ppb	E200.8
pH	7.59	0.05	pH units @ °C	SM4500H+8
Total Suspended Solids	43	1	ppm	SM2540D
Specific Conductivity	614	10	µmhos/cm@25°C	E120.1
Ethylbenzene	ND	0.5	ppb	E602
Biological Oxygen Demand	ND	4	ppm	SM5210B
Benzene	ND	0.5	ppb	E602
Hexane Extractable Material w/o Silica Gel Cleanup	ND	5	ppm	E1664A
Lead	19	0.5	ppb	E200.8
Toluene	ND	0.5	ppb	E602

Environmental Technical Services Analysis Report

ID:	55	Event Date:	3/29/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave Richmond CA				
Project Name:	LRTO Discharge				
Sample Name:	LRT samples from SW2, 4, 5, 6 and 7 on 3/29/12 for Discharge.				
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant		
Analytical Lab:	Curtis & Tompkins				
Description:	Samples taken from SW2, SW4, SW5, SW6 and SW7 taken on 3/29/12 for the purpose of seeking approval to discharge into the City of Richmond Sanitary Sewer System.				

Sample Location: SW(2,4,5,6,7)	Sample Time:	3/29/2012		
Analyte	Result	Limit	UOM	Method
Copper	8.7	5	ppb	6010B
Zinc	60	5	ppb	6010B
Nickel	ND	5	ppb	6010B
TOG (Hexane Extractable Material-HEM)	ND	4.7	ppm	1664A
Lead	9.7	5	ppb	6010B
m,p-Xylenes	ND	0.5	ppb	E602
Ethylbenzene	ND	0.5	ppb	E602
Benzene	ND	0.5	ppb	E602
Toluene	ND	0.5	ppb	E602
pH	6.9	1	SU	SM4500H+B
o-Xylene	ND	0.5	ppb	E602

Environmental Technical Services Analysis Report

ID:	53	Event Date:	4/5/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond	CA	
Project Name:	LRTO Disch 1+3 120405				
Sample Name:	LRT discharge sampling of SW1 and SW3 on 4/5/12				
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant		
Analytical Lab:	Curtis & Tompkins				
Description:	Samples taken from SW1 and SW3 requesting permission to discharge into City of Richmond sanitary sewer system.				

Sample Location: SW1, SW3	Sample Time:	4/5/2012			
Analyte	Result	Limit	UOM	Method	
Lead	150	5	ppb	E200.7	
Copper	68	5	ppb	E200.7	
Benzene	ND	0.5	ppb	E624	
pH	7	1	SU	9040C	
TOG (Hexane Extractable Material-HEM)	10.7	4.7	ppm	1664A	
Nickel	14	5	ppb	E200.7	
m,p-Xylenes	ND	0.5	ppb	E624	
Ethylbenzene	ND	0.5	ppb	E624	
Toluene	ND	0.5	ppb	E624	
Zinc	990	5	ppb	E200.7	
o-Xylene	.5	0.5	ppb	E624	

Attachment C – Analytical Results Continued

Other Sampling Events

October 27, 2011

January 25, 2012

March 14, 2012

May 9, 2012

Environmental Technical Services Analysis Report

	25	10/27/2011	Customer: Levin Richmond Terminal
Site:	402 Wright Ave		Richmond CA
Project Name:	SW-7		
Sample Name:	Specific Conductivity analysis of SW-7.		
Sampler:	Helen Mawhinney	Sr. Environmental Consultant	
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	Specific Conductivity study of SW7, sampled on 10/27/11.		

Sample Location: SW7 Inflow	Sample Time: 10/27/2011			
Analyte	Result	Limit	UOM	Method
Methoxychlor	ND	0.1	ppb	SW8081A
p,p-DDT	0.085	0.01	ppb	SW8081A
Dieldrin	0.15	0.01	ppb	SW8081A
Endosulfan I	ND	0.02	ppb	SW8081A
Endosulfan II	ND	0.02	ppb	SW8081A
Endosulfan sulfate	ND	0.05	ppb	SW8081A
Endrin	0.093	0.01	ppb	SW8081A
Endrin aldehyde	ND	0.05	ppb	SW8081A
Endrin ketone	ND	0.05	ppb	SW8081A
Heptachlor epoxide	ND	0.01	ppb	SW8081A
Toxaphene	ND	0.5	ppb	SW8081A
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A
Hexachlorobenzene	ND	0.5	ppb	SW8081A
p,p-DDE	ND	0.01	ppb	SW8081A
Heptachlor	ND	0.01	ppb	SW8081A
g-Chlordane	ND	0.05	ppb	SW8081A
a-Chlordane	ND	0.05	ppb	SW8081A
Chlordane (Technical)	ND	0.1	ppb	SW8081A
g-BHC	ND	0.02	ppb	SW8081A
d-BHC	ND	0.005	ppb	SW8081A
b-BHC	ND	0.005	ppb	SW8081A
p,p-DDD	ND	0.01	ppb	SW8081A
Aldrin	ND	0.005	ppb	SW8081A
a-BHC	ND	0.01	ppb	SW8081A

Environmental Technical Services Analysis Report

ID:	43	Event Date:	1/25/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond		CA
Project Name:	Discharge 1-25-12; Levin Rich				
Sample Name:	LRT Municipal Discharge Specific Conductivity Study Analysis for 1/25/12				
Sampler:	Helen Mawhinney		Sr. Environmental Consultant		
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Additional analysis of composite samples taken from LRT stormwater interceptors SW1 - SW7 and analyzed for Inorganic Anions, and Alkali Metals.				

Sample Location:	SW1 thru SW7	Sample Time:	1/25/2012		
Analyte	Result	Limit	UOM	Method	
Nitrate as NO3 ⁻	2.6	0.1	ppm	E300.1	
Bromide	.54	0.1	ppm	E300.1	
Phosphate as P	.19	0.1	ppm	E300.1	
Sulfate	23	0.1	ppm	E300.1	
Calcium	16000	500	ppb	E200.7	
Iron	1900	50	ppb	E200.7	
Magnesium	12000	50	ppb	E200.7	
Manganese	92	20	ppb	E200.7	
Potassium	8100	500	ppb	E200.7	
Nitrite as N	ND	0.1	ppm	E300.1	
Sodium	82000	500	ppb	E200.7	
Chloride	140	0.1	ppm	E300.1	
Nitrate as N	.59	0.1	ppm	E300.1	
Fluoride	.11	0.1	ppm	E300.1	

Environmental Technical Services Analysis Report

ID:	56	Event Date:	3/14/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond	CA	
Project Name:	LRT SW-7 March 2012				
Sample Name:	LRT SW7 In-House Analysis				
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant		
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	LRT SW7 Interceptor sampled and analyzed for TPH, TOC, Pesticides, COD, TPHg, BTEX, MTBE, PAH, PNA, Metals, TSS, and TPH(MO).				

Sample Location: SW-7		Sample Time: 3/14/2012			
Analyte	Result	Limit	UOM	Method	
Aroclor 1248	ND	0.5	ppb	E608	
Organic Carbon, Total	1.8	0.3	ppm	E415.3	
TPH-Motor Oil (C18-C36)	ND	250	ppb	SW8015B	
Total Suspended Solids	1.80	1	ppm	SM2540D	
Chemical Oxygen Demand	ND	10	ppm	SM5220D	
Specific Conductivity	35	10	µmhos/cm @ 25°C	SM2510B	
Aroclor 1254	ND	0.5	ppb	E608	
Petroleum Hydrocarbons - Gasoline, Total	ND	50	ppb	SW8260B	
Aroclor 1242	ND	0.5	ppb	E608	
Aroclor 1232	ND	0.5	ppb	E608	
Aroclor 1221	ND	0.5	ppb	E608	
Aroclor 1260	ND	0.5	ppb	E608	
Zinc	13	5	ppb	E200.8	
PCBs, total	ND	0.5	ppb	E608	
Aluminum	75	50	ppb	E200.7	
Iron	120	20	ppb	E200.7	
Lead	1.3	0.5	ppb	E200.8	
Copper	2.5	0.5	ppb	E200.8	
Xylenes, Total	ND	0.5	ppb	SW8260B	
Toluene	ND	0.5	ppb	SW8260B	
Ethylbenzene	ND	0.5	ppb	SW8260B	
Benzene	ND	0.5	ppb	SW8260B	
Methyl Tert-Butyl Ether	ND	0.5	ppb	SW8260B	
Vanadium	2.1	0.5	ppb	E200.8	
Endrin aldehyde	ND	0.01	ppb	E608	
p,p-DDE	ND	0.01	ppb	E608	
p,p-DDT	ND	0.01	ppb	E608	
Dieldrin	ND	0.01	ppb	E608	
Endosulfan I	ND	0.02	ppb	E608	
Endosulfan II	ND	0.01	ppb	E608	

Laboratory Analytical Report ID: 56 Event Date: 3/14/2012 Customer: Levin Richmond Terminal

Environmental Technical Services Analysis Report

	56	3/14/2012	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond CA
Project Name:	LRT SW-7 March 2012		
Sample Name:	LRT SW7 In-House Analysis		
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant
Analytical Lab:	McCampbell Analytical Labs, Inc. DHS ELSAP Cert No 1644		
Description:	LRT SW7 interceptor sampled and analyzed for TPH, TOC, Pesticides, COD, TPHg, BTEX, MTBE, PAH, PNA, Metals, TSS, and TPH(MO).		

Sample Location: SW-7	Sample Time: 3/14/2012
-----------------------	------------------------

Analyte	Result	Limit	UOM	Method
p,p-DDD	ND	0.01	ppb	E608
Endrin	ND	0.01	ppb	E608
Heptachlor epoxide	ND	0.01	ppb	E608
Endrin ketone	ND	0.05	ppb	E608
Heptachlor	ND	0.01	ppb	E608
Hexachlorobenzene	ND	0.5	ppb	E608
Hexachlorocyclopentadiene	ND	1	ppb	E608
Aldrin	ND	0.005	ppb	E608
Methoxychlor	ND	0.1	ppb	E608
Endosulfan sulfate	ND	0.05	ppb	E608
Chlordane (Technical)	ND	0.1	ppb	E608
Aroclor 1016	ND	0.5	ppb	E608
Petroleum Oil and Grease With Silica Gel Cleanup	ND	50	ppm	SM5520B/F
a-BHC	ND	0.01	ppb	E608
b-BHC	ND	0.005	ppb	E608
g-BHC	ND	0.02	ppb	E608
Toxaphene	ND	0.5	ppb	E608
a-Chlordane	ND	0.05	ppb	E608
g-Chlordane	ND	0.05	ppb	E608
d-BHC	ND	0.005	ppb	E608

Environmental Technical Services Analysis Report

ID:	60	Event Date:	5/9/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond	CA	
Project Name:	#120509 EPA LEVN; LRT 120509 EPA				
Sample Name:	LRT EPA sample from SW6 and SW7 dated 5/9/12				
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant		
Analytical Lab:	McC Campbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Samples taken from stormwater interceptors SW-6 and SW-7 at LRT and analyzed for pesticides and PCBs.				

Sample Location: SW-6		Sample Time: 5/9/2012 10:01:00 AM		
Analyte	Result	Limit	UOM	Method
Endosulfan sulfate	ND	0.05	ppb	SW8081A/8082
Aldrin	ND	0.005	ppb	SW8081A/8082
Aroclor1248	ND	0.5	ppb	SW8081A/8082
Aroclor1242	ND	0.5	ppb	SW8081A/8082
Aroclor1232	ND	0.5	ppb	SW8081A/8082
Aroclor1221	ND	0.5	ppb	SW8081A/8082
Aroclor1016	ND	0.5	ppb	SW8081A/8082
Toxaphene	ND	0.5	ppb	SW8081A/8082
Methoxychlor	ND	0.1	ppb	SW8081A/8082
Hexachlorocyclopentadiene	ND	1	ppb	SW8081A/8082
Hexachlorobenzene	ND	0.5	ppb	SW8081A/8082
Heptachlor epoxide	ND	0.01	ppb	SW8081A/8082
Heptachlor	ND	0.01	ppb	SW8081A/8082
Endrin ketone	ND	0.05	ppb	SW8081A/8082
Aroclor1254	ND	0.5	ppb	SW8081A/8082
p,p-DDD	0.021	0.01	ppb	SW8081A/8082
a-BHC	ND	0.01	ppb	SW8081A/8082
b-BHC	ND	0.005	ppb	SW8081A/8082
d-BHC	ND	0.005	ppb	SW8081A/8082
g-BHC	ND	0.02	ppb	SW8081A/8082
Chlordane (Technical)	ND	0.1	ppb	SW8081A/8082
Endrin aldehyde	ND	0.05	ppb	SW8081A/8082
g-Chlordane	ND	0.05	ppb	SW8081A/8082
Endrin	ND	0.01	ppb	SW8081A/8082
p,p-DDE	0.037	0.01	ppb	SW8081A/8082
p,p-DDT	0.044	0.01	ppb	SW8081A/8082
Dieldrin	0.013	0.01	ppb	SW8081A/8082
Endosulfan I	ND	0.02	ppb	SW8081A/8082
Endosulfan II	ND	0.02	ppb	SW8081A/8082
Aroclor1260	ND	0.5	ppb	SW8081A/8082

Laboratory Analytical Report	ID: 60	Event Date: 5/9/2012	Customer: Levin Richmond Terminal
-------------------------------------	---------------	-----------------------------	--

Environmental Technical Services Analysis Report

ID:	60	Event Date:	5/9/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond	CA	
Project Name:	#120509 EPA LEVN; LRT 120509 EPA				
Sample Name:	LRT EPA sample from SW6 and SW7 dated 5/9/12				
Sampler:	Helen Mawhinney		Title:	Sr. Environmental Consultant	
Analytical Lab:	McC Campbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Samples taken from stormwater interceptors SW-6 and SW-7 at LRT and analyzed for pesticides and PCBs.				

Sample Location: SW-6		Sample Time: 5/9/2012 10:01:00 AM			
Analyte		Result	Limit	UOM	Method
a-Chlordane		ND	0.05	ppb	SW8081A/8082

Environmental Technical Services Analysis Report

ID:	60	Event Date:	5/9/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave		Richmond	CA	
Project Name:	#120509 EPA LEVN; LRT 120509 EPA				
Sample Name:	LRT EPA sample from SW6 and SW7 dated 5/9/12				
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant		
Analytical Lab:	McC Campbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Samples taken from stormwater interceptors SW-6 and SW-7 at LRT and analyzed for pesticides and PCBs.				

Sample Location: SW-7 Sample Time: 5/9/2012 10:49:00 AM					
Analyte	Result	Limit	UOM	Method	
Endosulfan sulfate	ND<0.25	0.05	ppb	SW8081A/8082	
Aroclor1254	ND<2.5	0.5	ppb	SW8081A/8082	
Aroclor1248	ND<2.5	0.5	ppb	SW8081A/8082	
Aroclor1242	ND<2.5	0.5	ppb	SW8081A/8082	
Aroclor1232	ND<2.5	0.5	ppb	SW8081A/8082	
Aroclor1221	ND<2.5	0.5	ppb	SW8081A/8082	
Aroclor1016	ND<2.5	0.5	ppb	SW8081A/8082	
Toxaphene	ND<2.5	0.5	ppb	SW8081A/8082	
Methoxychlor	ND<0.50	0.1	ppb	SW8081A/8082	
Hexachlorocyclopentadiene	ND<5.0	1	ppb	SW8081A/8082	
Hexachlorobenzene	ND<2.5	0.5	ppb	SW8081A/8082	
Heptachlor epoxide	ND<0.050	0.01	ppb	SW8081A/8082	
Heptachlor	ND<0.050	0.01	ppb	SW8081A/8082	
Endrin ketone	ND<0.25	0.05	ppb	SW8081A/8082	
Aldrin	ND<0.025	0.005	ppb	SW8081A/8082	
p,p-DDD	0.066	0.01	ppb	SW8081A/8082	
a-BHC	ND<0.050	0.01	ppb	SW8081A/8082	
b-BHC	ND<0.025	0.005	ppb	SW8081A/8082	
d-BHC	ND<0.025	0.005	ppb	SW8081A/8082	
g-BHC	ND<0.10	0.02	ppb	SW8081A/8082	
Chlordane (Technical)	ND<0.50	0.1	ppb	SW8081A/8082	
Endrin aldehyde	ND<0.25	0.05	ppb	SW8081A/8082	
g-Chlordane	ND<0.25	0.05	ppb	SW8081A/8082	
Endrin	ND<0.050	0.01	ppb	SW8081A/8082	
p,p-DDE	0.11	0.01	ppb	SW8081A/8082	
p,p-DDT	0.091	0.01	ppb	SW8081A/8082	
Dieldrin	ND<0.050	0.01	ppb	SW8081A/8082	
Endosulfan I	ND<0.10	0.02	ppb	SW8081A/8082	
Endosulfan II	ND<0.10	0.02	ppb	SW8081A/8082	
Aroclor1260	ND<2.5	0.5	ppb	SW8081A/8082	

Laboratory Analytical Report	ID: 60	Event Date: 5/9/2012	Customer: Levin Richmond Terminal
-------------------------------------	---------------	-----------------------------	--

Environmental Technical Services Analysis Report

ID:	60	Event Date:	5/9/2012	Customer:	Levin Richmond Terminal
Site:	402 Wright Ave	Richmond	CA		
Project Name:	#120509 EPA LEVN; LRT 120509 EPA				
Sample Name:	LRT EPA sample from SW6 and SW7 dated 5/9/12				
Sampler:	Helen Mawhinney	Title:	Sr. Environmental Consultant		
Analytical Lab:	McC Campbell Analytical Labs, Inc. DHS ELSAP Cert No 1644				
Description:	Samples taken from stormwater interceptors SW-6 and SW-7 at LRT and analyzed for pesticides and PCBs.				

Sample Location: SW-7		Sample Time: 5/9/2012 10:49:00 AM			
Analyte		Result	Limit	UOM	Method
a-Chlordane		ND<0.25	0.05	ppb	SW8081A/8082

Attachment D

CLEANING OF INTERCEPTORS SW-1 through SW-7

CLEANING OF INTERCEPTORS SW-1 through SW-7

Stormwater Sampling / Interceptor Preparation

Plans for the annual cleaning of storm water interceptors were developed by Levin Richmond Terminal personnel with Environmental Technical Services in June, 2003. Cleaning was increased to several times throughout the year beginning in June, 2005 and remains an active part of LRTC's SWPPP. The interceptors are emptied on an as-needed basis to decrease or eliminate storm water discharge.

Stormwater Sampling / Interceptor Preparation

The methodologies used to collect storm water samples within the interceptors and to fill appropriately preserved sampling containers for analysis are described as follows:

A groundwater monitoring pump (GMP) was purchased by LRT to collect an undisturbed and representative storm water sample. Non-toxic FDA approved tubing was attached to the pump to transport storm water into the appropriate containers.

SW-1 through SW-7

Stormwater samples were collected within SW-1 through SW-7 by opening an access port into the large interceptor cover. A GMP was lowered into the standing water in the last chamber and stormwater was pumped into a clean sample collection container.

Three discrete, 40-ml, Volatile Organics Analysis bottles were filled from each interceptor, to be composited by a State-certified analytical laboratory as one sample for analysis. Stormwater samples for all other analysis were composited during field sampling. This was accomplished by collecting equal amounts of water from each interceptor within a clean 5-gallon Teflon container provided by the laboratory. Upon completion this water was then decanted into appropriately preserved sample containers.

Each sample bottle was labeled with LRTC as the project name; storm water system identification number; sampler's name, date, time and preservative. The samples were placed within a cooler on ice, and transported to a certified analytical laboratory under chain of custody, within the sample's holding time.

Analysis

For the purpose of obtaining the City of Richmond, Waste Water Division, Pretreatment Program's approval to discharge collected storm water into the municipal sanitary sewer during interceptor cleanout. Composite samples were analyzed for total petroleum hydrocarbons reported as hexane extractable materials oil and grease ((silica gel treated) HEM, using EPA Method 1664); benzene, ethyl benzene, total xylenes, (BTEX,

using EPA Method 624); pH (using a HYDAC meter or SM4500H&B), copper, nickel, lead, and zinc (using EPA Method 200.7 or 200.8).

Certified clean, properly preserved bottles were supplied by Curtis and Tompkins Analytical Labs, a state-certified analytical laboratory. The bottles were stored in sealed, plastic bags and placed within tightly sealed containers to prevent contamination. Helen Mawhinney of ETS collected the storm water samples. Disposable latex gloves were changed when an unclean surface was encountered, and between samples. Headspace was eliminated in sample bottles and appropriate preservatives used.

Upon completion, laboratory analytical results were presented to the City of Richmond Waste Water Division, Pretreatment Program, for review to determine if water removed during the storm water interceptor's cleaning process could be discharged into the sanitary sewer. The City of Richmond approved discharge under LRTC's Industrial Discharge Permit. The Waste Water Division was notified 48 hours prior to each project start.

LRTC's stormwater team emptied and cleaned interceptors SW-1 through SW-7. LRTC pumped water from the interceptors utilizing a specially equipped water truck. Water was discharged from the water truck directly into the sanitary sewer or returned to stockpiles for dust control by spraying. Sediment was removed from the interceptors using storm water to liquefy the sediment, which was then pumped into the vacuum truck. Sediment was released from the truck into a sealed concrete, bermed wash water collection basin where it was covered with plastic and allowed to dry. The sediment was returned to the stockpiles from which it was generated or disposed of at a qualified landfill.

Subsequent to emptying, each interceptor's floor and sidewalls were pressure-washed. This process was repeated until all the sediment had been removed and the cleaning of each interceptor complete.

Attachment E
Certified Laboratory Analytical Reports
Chain of Custody

Annual Sampling Events

January 20, 2012
February 7, 2012
March 14, 2012

Discharge To Sanitary Sewer
Stormwater Systems Cleanout
Sampling Events

October 5, 2011
November 29, 2011
January 25, 2012
March 29, 2012
April 5, 2012

Other Sampling Events

October 27, 2011
January 25, 2012
March 14, 2012
May 9, 2012

**Certified Laboratory Analytical Report
Annual Sampling Events**

January 20, 2012

February 7, 2012

March 14, 2012

Certified Laboratory Analytical Report Annual Sampling Events

January 20, 2012



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mcccampbell.com> / E-mail: main@mcccampbell.com

Analytical Report

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 01/20/12
		Date Received: 01/23/12
	Client Contact: Helen Mawhinney	Date Reported: 02/02/12
	Client P.O.: #22430	Date Completed: 01/27/12

WorkOrder: 1201573

February 02, 2012

Dear Helen:

Enclosed within are:

- 1) The results of the 8 analyzed samples from your project: **LRT First Annual Stormwater Sampling Event**,
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.



McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURGH, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

LEVIN RICH TERMINAL "ANNUAL STORMWATER SAMPLING"

Report To: Helen Mawhinney

Bill To: ETS

Company: ENVIRONMENTAL TECHNICAL SERVICES (ETS)

1548 JACOB AVENUE, SAN JOSE, CA 95118

PO Number: TL 22430 E-Mail: hawhinneyets@aol.com

Tele: (831) 236-9221

Fax: (831) 883-8490

Project #:

Project Name:

Project Locate: Levin Richmond Terminal (LRT) 402 Wright Ave, Richmond 94804

Sampler Signature: R.A. LESTER

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Analysis Request

Other

Comments

**Indicate here if these samples are potentially dangerous to handle:

SAMPLE ID

LOCATION/
Field Point
Name

SAMPLING

Date

Time

Containers

Type Containers

MATRIX

METHOD
PRESERVED

Water

Soil

Air

Sludge

Other

ICE

HCL

HNO₃

Other

BTX & TPH AS GAS (662-18011, 3-8045) / MTU

11-PPH DIESEL C10-28 3510-8015 (M)

MOTOR OIL C28-C40 3510-8015B (M)

TOTAL PETROLEUM OIL & GREASE (1604-552P)

TSS SM18-25400

SPEC COND 1261

COD HACH 8000

PH SM19 4508 II-D

TOC

TTLC AL, CU, FE, PB, ZN, VN 3010A/6010B

EPA 8081 PESTICIDES

SW1
SW2
SW3
SW4
SW5
SW6
SW7
SW11
SW12

SW1
SW2
SW3
SW4
SW3
SW6
SW7
SW11
SW12

01/20
01/20
↓
↓
↓
↓
↓
↓
↓

1200-1500
TO 1500
↓
↓
↓
↓
↓
↓
↓

X

X

X

X

X

X

X

X

X

X

X

SW10 NOT FLOWING

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By:

R.A. LESTER

Date:

01/23

Time:

1130

Received By:

Relinquished By:

R.A. LESTER

Date:

Time:

Received By:

Relinquished By:

Date:

1/23/12

Time:

11:55

Received By:

He Vee

ICEA 6.0

GOOD CONDITION

HEAD SPACE ABSENT

DECHLORINATED IN LAB

APPROPRIATE CONTAINERS

PRESERVED IN LAB

VOAS O&G METALS OTHER

PRESERVATION pH-2

COMMENTS:

Report TPHd, TOG, O&G separately

EPA Methods can be changed by the lab

to what they recommended without pre-approval

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1201573

ClientCode: ETS

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☒ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
510-385-4308 FAX: 510-522-6259

Email: HMawhinneyETS@aol.com; james.jimenez
cc:
PO: #22430
ProjectNo: LRT First Annual Stormwater Sampling
Event

Bill to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
james.jimenez@sbcglobal.net

Requested TAT: 5 days

Date Received: 01/23/2012

Date Printed: 01/23/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1201573-001	SW1	Water	1/20/2012	<input type="checkbox"/>	I	G	D	C	A	D	E	E	B	H	F	
1201573-002	SW2	Water	1/20/2012	<input type="checkbox"/>	I	G	D	C	A	D	E	E	B	H	F	
1201573-003	SW3	Water	1/20/2012	<input type="checkbox"/>	I	G	D	C	A	D	E	E	B	H	F	
1201573-004	SW4	Water	1/20/2012	<input type="checkbox"/>	I	G	D	F	A	D	E	E	B	H	F	
1201573-005	SW5	Water	1/20/2012	<input type="checkbox"/>	I	G	D	F	A	D	E	E	B	H	F	
1201573-006	SW6	Water	1/20/2012	<input type="checkbox"/>	I	G	D	C	A	D	E	E	B	H	F	
1201573-007	SW7	Water	1/20/2012	<input type="checkbox"/>	I	G	D	C	A	D	E	E	B	H	F	
1201573-008	SW11	Water	1/20/2012	<input type="checkbox"/>	I	G	D	C	A	D	E	E	B	H	F	
1201573-009	SW12	Water	1/20/2012	<input type="checkbox"/>	I	G	D	C	A	D	E	E	B	H	F	

Test Legend:

1	1664A_W	2	8081_W	3	ALKIMET_W	4	COD_W	5	GAS8260_W
6	METALSMS_W	7	PH_W	8	SC_W	9	TOC_W	10	TPH(DMO)_W
11	TSS_W	12							

The following SampleIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A contain testgroup.

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Environmental Technical Services**

Date and Time Received: **1/23/2012 1:50:31 PM**

Project Name: **LRT First Annual Stormwater Sampling Event**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **1201573**

Matrix: Water

Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 5.6°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: **WET ICE**)

* NOTE: If the "No" box is checked, see comments below.

Comments: For samples SW4 & SW5 no voas for COD were received. pH for all samples was received pass it's holding time.

**McC Campbell Analytical, Inc.***"When Quality Counts"*1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 01/20/12
	Client Contact: Helen Mawhinney	Date Received: 01/23/12
	Client P.O.: #22430	Date Extracted: 01/27/12
		Date Analyzed: 01/30/12

Hexane Extractable Material without Silica Gel Clean Up*

Extraction method: E1664A

Analytical methods: E1664A

Work Order: 1201573

Lab ID	Client ID	Matrix	HEM	DF	% SS	Comments
1201573-001I	SW1	W	ND	1	N/A	
1201573-002I	SW2	W	ND	1	N/A	b1
1201573-003I	SW3	W	ND	1	N/A	
1201573-004I	SW4	W	ND	1	N/A	
1201573-005I	SW5	W	ND	1	N/A	
1201573-006I	SW6	W	ND	1	N/A	
1201573-008I	SW11	W	ND	1	N/A	
1201573-009I	SW12	W	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	5.0	mg/L
	S	NA	NA

* water samples and all TCLP & SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L.

DF = dilution factor (may be raised to dilute target analyte or matrix interference).

%SS = Percent Recovery of Surrogate Standard

surrogate diluted out of range

b1) aqueous sample that contains greater than ~1 vol. % sediment

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 01/20/12
	Client Contact: Helen Mawhinney	Date Received: 01/23/12
	Client P.O.: #22430	Date Extracted: 01/23/12
		Date Analyzed: 01/24/12-01/29/12

Organochlorine Pesticides by GC-ECD (8080 Basic Target List)*

Extraction Method: SW3510C

Analytical Method: SW8081A

Work Order: 1201573

Lab ID	1201573-001G	1201573-002G	1201573-003G	1201573-004G	Reporting Limit for DF =1	
Client ID	SW1	SW2	SW3	SW4		
Matrix	W	W	W	W	S	W
DF	1	1	1	1		

Compound	Concentration				µg/kg	µg/L
Aldrin	ND	ND	ND	ND	NA	0.005
a-BHC	ND	ND	ND	ND	NA	0.01
b-BHC	ND	ND	ND	ND	NA	0.005
d-BHC	ND	ND	ND	ND	NA	0.005
g-BHC	ND	ND	ND	ND	NA	0.02
Chlordane (Technical)	ND	ND	ND	ND	NA	0.1
a-Chlordane	ND	ND	ND	ND	NA	0.05
g-Chlordane	ND	ND	ND	ND	NA	0.05
p,p-DDD	ND	ND	ND	ND	NA	0.01
p,p-DDE	ND	ND	ND	ND	NA	0.01
p,p-DDT	ND	ND	ND	ND	NA	0.01
Dieldrin	ND	ND	ND	ND	NA	0.01
Endosulfan I	ND	ND	ND	ND	NA	0.02
Endosulfan II	ND	ND	ND	ND	NA	0.02
Endosulfan sulfate	ND	ND	ND	ND	NA	0.05
Endrin	ND	ND	ND	ND	NA	0.01
Endrin aldehyde	ND	ND	ND	ND	NA	0.05
Endrin ketone	ND	ND	ND	ND	NA	0.05
Heptachlor	ND	ND	ND	ND	NA	0.01
Heptachlor epoxide	ND	ND	ND	ND	NA	0.01
Hexachlorobenzene	ND	ND	ND	ND	NA	0.5
Hexachlorocyclopentadiene	ND	ND	ND	ND	NA	1.0
Methoxychlor	ND	ND	ND	ND	NA	0.1
Toxaphene	ND	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS:	93	84	81	83	
Comments		b1			

* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor.

surrogate diluted out of range or surrogate coelutes with another peak.

a3) sample diluted due to high organic content.

b1) aqueous sample that contains greater than ~1 vol. % sediment

AR

**McC Campbell Analytical, Inc.***"When Quality Counts"*1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 01/20/12
	Client Contact: Helen Mawhinney	Date Received: 01/23/12
	Client P.O.: #22430	Date Extracted: 01/23/12
		Date Analyzed: 01/24/12-01/29/12

Organochlorine Pesticides by GC-ECD (8080 Basic Target List)*

Extraction Method: SW3510C

Analytical Method: SW8081A

Work Order: 1201573

Lab ID	1201573-005G	1201573-006G	1201573-008G	1201573-009G	Reporting Limit for DF =1	
Client ID	SW5	SW6	SW11	SW12		
Matrix	W	W	W	W	S	W
DF	1	1	5	1		

Compound	Concentration				µg/kg	µg/L
Aldrin	ND	ND	ND<0.025	ND	NA	0.005
a-BHC	ND	ND	ND<0.050	ND	NA	0.01
b-BHC	ND	ND	ND<0.025	ND	NA	0.005
d-BHC	ND	ND	ND<0.025	ND	NA	0.005
g-BHC	ND	ND	ND<0.10	ND	NA	0.02
Chlordane (Technical)	ND	ND	ND<0.50	ND	NA	0.1
a-Chlordane	ND	ND	ND<0.25	ND	NA	0.05
g-Chlordane	ND	ND	ND<0.25	ND	NA	0.05
p,p-DDD	ND	ND	ND<0.050	ND	NA	0.01
p,p-DDE	ND	ND	ND<0.050	ND	NA	0.01
p,p-DDT	ND	ND	ND<0.050	ND	NA	0.01
Dieldrin	ND	ND	ND<0.050	ND	NA	0.01
Endosulfan I	ND	ND	ND<0.10	ND	NA	0.02
Endosulfan II	ND	ND	ND<0.10	ND	NA	0.02
Endosulfan sulfate	ND	ND	ND<0.25	ND	NA	0.05
Endrin	ND	ND	ND<0.050	ND	NA	0.01
Endrin aldehyde	ND	ND	ND<0.25	ND	NA	0.05
Endrin ketone	ND	ND	ND<0.25	ND	NA	0.05
Heptachlor	ND	ND	ND<0.050	ND	NA	0.01
Heptachlor epoxide	ND	ND	ND<0.050	ND	NA	0.01
Hexachlorobenzene	ND	ND	ND<2.5	ND	NA	0.5
Hexachlorocyclopentadiene	ND	ND	ND<5.0	ND	NA	1.0
Methoxychlor	ND	ND	ND<0.50	ND	NA	0.1
Toxaphene	ND	ND	ND<2.5	ND	NA	0.5

Surrogate Recoveries (%)

%SS:	88	103	103	100	
Comments			a3		

* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor.

surrogate diluted out of range or surrogate coelutes with another peak.

a3) sample diluted due to high organic content.

b1) aqueous sample that contains greater than ~1 vol. % sediment

**McC Campbell Analytical, Inc.***"When Quality Counts"*1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services

1548 Jacob Avenue

San Jose, CA 95118

Client Project ID: LRT First Annual
Stormwater Sampling Event

Client Contact: Helen Mawhinney

Client P.O.: #22430

Date Sampled: 01/20/12

Date Received: 01/23/12

Date Extracted: 01/23/12

Date Analyzed: 02/01/12

Alkali Metals by ICP*

Extraction method: E200.7

Analytical methods: E200.7

Work Order: 1201573

Lab ID	Client ID	Matrix	Extraction Type	Aluminum	Iron	DF	% SS	Comments
001D	SW1	W	TOTAL	640	1600	1	114	
002D	SW2	W	TOTAL	5400	10,000	1	100	b1
003D	SW3	W	TOTAL	1700	3900	1	104	
004D	SW4	W	TOTAL	710	1400	1	105	
005D	SW5	W	TOTAL	160	440	1	99	
006D	SW6	W	TOTAL	300	700	1	97	
008D	SW11	W	TOTAL	2000	4000	1	98	
009D	SW12	W	TOTAL	200	520	1	98	

Reporting Limit for DF = 1;
ND means not detected at or above the reporting limit

W	TOTAL	50	50	µg/L
S	TOTAL	NA	NA	NA

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate recovery outside of acceptance range due to matrix interference; & means low or no surrogate due to matrix interference; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

TOTAL = Hot acid digestion of a representative sample aliquot.

TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.

DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

b1) aqueous sample that contains greater than ~1 vol. % sediment

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 01/20/12
		Date Received: 01/23/12
	Client Contact: Helen Mawhinney	Date Extracted: 01/24/12
	Client P.O.: #22430	Date Analyzed: 01/24/12

Chemical Oxygen Demand (COD)*

Analytical Method: SM5220D

Work Order: 1201573

Lab ID	Client ID	Matrix	COD	DF	Comments
1201573-001C	SW1	W	15	1	
1201573-002C	SW2	W	310	1	b1
1201573-003C	SW3	W	45	1	
1201573-004F	SW4	W	ND	1	
1201573-005F	SW5	W	17	1	
1201573-006C	SW6	W	15	1	
1201573-008C	SW11	W	190	1	
1201573-009C	SW12	W	17	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 mg/L	
	S	NA	

*water/product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L,
soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

b1) aqueous sample that contains greater than ~1 vol. % sediment

**McC Campbell Analytical, Inc.***"When Quality Counts"*1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 01/20/12
	Client Contact: Helen Mawhinney	Date Received: 01/23/12
	Client P.O.: #22430	Date Extracted: 01/24/12
		Date Analyzed: 01/24/12

TPH(g) by Purge & Trap and GC/MS*

Extraction method: SW5030B

Analytical methods: SW8260B

Work Order: 1201573

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS	Comments
001A	SW1	W	ND	1	116	
002A	SW2	W	ND	1	115	b1
003A	SW3	W	ND	1	116	
004A	SW4	W	ND	1	106	
005A	SW5	W	ND	1	115	
006A	SW6	W	ND	1	115	
008A	SW11	W	ND	1	113	
009A	SW12	W	ND	1	104	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 01/20/12
	Client Contact: Helen Mawhinney	Date Received: 01/23/12
	Client P.O.: #22430	Date Extracted: 01/24/12
		Date Analyzed: 01/24/12

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1201573

Lab ID	1201573-001A	1201573-002A	1201573-003A	1201573-004A	Reporting Limit for DF = 1	
Client ID	SW1	SW2	SW3	SW4		
Matrix	W	W	W	W		
DF	1	1	1	1	S	W
Compound	Concentration				ug/kg	µg/L
Benzene	ND	ND	ND	ND	NA	0.5
Ethylbenzene	ND	ND	ND	ND	NA	0.5
Methyl-t-butyl ether (MTBE)	ND	ND	ND	ND	NA	0.5
Toluene	ND	ND	ND	ND	NA	0.5
Xylenes, Total	ND	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	92	95	97	87	
%SS2:	116	114	116	106	
Comments		b1			

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor

b1) aqueous sample that contains greater than ~1 vol. % sediment

**McC Campbell Analytical, Inc.***"When Quality Counts"*1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 01/20/12
	Client Contact: Helen Mawhinney	Date Received: 01/23/12
	Client P.O.: #22430	Date Extracted: 01/24/12
		Date Analyzed: 01/24/12

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1201573

Lab ID	1201573-005A	1201573-006A	1201573-008A	1201573-009A	Reporting Limit for DF =1	
Client ID	SW5	SW6	SW11	SW12		
Matrix	W	W	W	W		
DF	1	1	1	1	S	W

Compound	Concentration				ug/kg	ug/L
Benzene	ND	ND	ND	ND	NA	0.5
Ethylbenzene	ND	ND	ND	ND	NA	0.5
Methyl-t-butyl ether (MTBE)	ND	ND	ND	ND	NA	0.5
Toluene	ND	ND	ND	ND	NA	0.5
Xylenes, Total	ND	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	93	92	92	91	
%SS2:	115	115	113	104	
Comments					

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

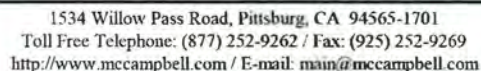
ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor

b1) aqueous sample that contains greater than ~1 vol. % sediment





Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 01/20/12
		Date Received: 01/23/12
	Client Contact: Helen Mawhinney	Date Extracted: 01/23/12
	Client P.O.: #22430	Date Analyzed: 01/23/12

pH*

Analytical Method: SM4500H+B

Work Order: 1201573

Lab ID	Client ID	Matrix	pH	DF	Comments
1201573-001E	SW1	W	7.39 @ 18.5°C	1	
1201573-002E	SW2	W	7.03 @ 17.8°C	1	b1
1201573-003E	SW3	W	7.41 @ 17.1°C	1	
1201573-004E	SW4	W	7.61 @ 17.5°C	1	
1201573-005E	SW5	W	7.43 @ 20.2°C	1	
1201573-006E	SW6	W	7.38 @ 19.9°C	1	
1201573-008E	SW11	W	7.75 @ 19.4°C	1	
1201573-009E	SW12	W	7.86 @ 19.8°C	1	

Method Accuracy and Reporting Units	W	±0.05, pH units @ °C
	S	NA

* According to the formal method, this is "field test" with a 15 minute Hold Time. However, as this is unrealistically short for commercial environmental analysis, MAI has designated a 24 hour hold time for aqueous samples.

DF = Dilution Factor

b1) aqueous sample that contains greater than ~1 vol. % sediment



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 01/20/12
		Date Received: 01/23/12
	Client Contact: Helen Mawhinney	Date Extracted: 01/23/12-01/26/12
	Client P.O.: #22430	Date Analyzed: 01/23/12-01/26/12

Specific Conductivity*

Analytical Method: SM2510B

Work Order: 1201573

Lab ID	Client ID	Matrix	Specific Conductivity	DF	Comments
1201573-001E	SW1	W	117 @ 25.0°C	1	
1201573-002E	SW2	W	192 @ 25.0°C	1	b1
1201573-003E	SW3	W	4350 @ 23.2°C	1	
1201573-004E	SW4	W	176 @ 25.0°C	1	
1201573-005E	SW5	W	149 @ 25.0°C	1	
1201573-006E	SW6	W	139 @ 25.0°C	1	
1201573-008E	SW11	W	2010 @ 25.0°C	1	
1201573-009E	SW12	W	136 @ 25.0°C	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit

W

10 µmhos/cm @ 25°C

S

NA

DF = Dilution Factor

b1) aqueous sample that contains greater than ~1 vol. % sediment



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 01/20/12
		Date Received: 01/23/12
	Client Contact: Helen Mawhinney	Date Extracted: 01/27/12
	Client P.O.: #22430	Date Analyzed: 01/27/12

Total Organic Carbon (TOC) reported as NPOC*

Analytical Method: E415.3

Work Order: 1201573

Lab ID	Client ID	Matrix	TOC	DF	Comments
1201573-001B	SW1	W	5.6	1	
1201573-002B	SW2	W	18	1	b1
1201573-003B	SW3	W	5.2	1	
1201573-004B	SW4	W	4.8	1	
1201573-005B	SW5	W	7.9	1	
1201573-006B	SW6	W	8.0	1	
1201573-008B	SW11	W	3.0	1	
1201573-009B	SW12	W	9.1	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.3 mg/L
	S	NA

* water samples are reported in mg/L. Settleable solids and floatable matter are excluded from analysis per E415.3. TOC is reported as NPOC.

TOC = Total Organic Carbon; NPOC = Non-Purgeable Organic Carbon; DOC = Dissolved Organic Carbon;
POC = Purgeable Organic Carbon; IC = Inorganic Carbon; TC = Total Carbon.

DF = Dilution Factor

b1) aqueous sample that contains greater than ~1 vol. % sediment

**McC Campbell Analytical, Inc.***"When Quality Counts"*1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 01/20/12
	Client Contact: Helen Mawhinney	Date Received: 01/23/12
	Client P.O.: #22430	Date Extracted: 01/23/12
		Date Analyzed: 01/23/12-01/24/12

Total Extractable Petroleum Hydrocarbons*

Extraction method: SW3510C

Analytical methods: SW8015B

Work Order: 1201573

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
1201573-001H	SW1	W	200	330	1	98	e7,e2
1201573-002H	SW2	W	77	ND	1	89	e2,b1
1201573-003H	SW3	W	110	ND	1	90	e2
1201573-004H	SW4	W	110	ND	1	94	e2,b1
1201573-005H	SW5	W	120	300	1	90	e7,e2
1201573-006H	SW6	W	220	320	1	97	e7,e2
1201573-008H	SW11	W	260	640	1	97	e7,e2
1201573-009H	SW12	W	120	ND	1	97	e2

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- b1) aqueous sample that contains greater than ~1 vol. % sediment
- e2) diesel range compounds are significant; no recognizable pattern
- e7) oil range compounds are significant

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager



Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 01/20/12
		Date Received: 01/23/12
	Client Contact: Helen Mawhinney	Date Extracted: 01/25/12
	Client P.O.: #22430	Date Analyzed: 01/25/12

Total Suspended Solids*

Analytical Method: SM2540D

Work Order: 1201573

Lab ID	Client ID	Matrix	Total Suspended Solids	DF	Comments
1201573-001F	SW1	W	48.0	10	
1201573-002F	SW2	W	330	50	b1
1201573-003F	SW3	W	68.0	5	
1201573-004F	SW4	W	17.6	2	
1201573-005F	SW5	W	8.40	2	
1201573-006F	SW6	W	10.8	2	
1201573-008F	SW11	W	220	25	
1201573-009F	SW12	W	3.20	2	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	1.0 mg/L	
	S	NA	

* water samples reported in mg/L.

DF = Dilution Factor

b1) aqueous sample that contains greater than ~1 vol. % sediment



QC SUMMARY REPORT FOR SW8081A

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64120

WorkOrder: 1201573

EPA Method: SW8081A		Extraction: SW3510C					Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Aldrin	N/A	0.50	N/A	N/A	N/A	109	N/A	N/A	70 - 130
g-BHC	N/A	0.50	N/A	N/A	N/A	90.6	N/A	N/A	70 - 130
p,p-DDT	N/A	1.25	N/A	N/A	N/A	76.3	N/A	N/A	70 - 130
Dieldrin	N/A	1.25	N/A	N/A	N/A	100	N/A	N/A	70 - 130
Endrin	N/A	1.25	N/A	N/A	N/A	101	N/A	N/A	70 - 130
Heptachlor	N/A	0.50	N/A	N/A	N/A	102	N/A	N/A	70 - 130
%SS:	N/A	1.25	N/A	N/A	N/A	87	N/A	N/A	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 64120 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201573-001G	01/20/12	01/23/12	01/28/12 2:11 PM	1201573-002G	01/20/12	01/23/12	01/29/12 6:15 PM
1201573-003G	01/20/12	01/23/12	01/29/12 4:22 PM	1201573-004G	01/20/12	01/23/12	01/29/12 5:18 PM
1201573-005G	01/20/12	01/23/12	01/29/12 2:29 PM	1201573-006G	01/20/12	01/23/12	01/24/12 11:32 PM
1201573-008G	01/20/12	01/23/12	01/25/12 6:03 AM	1201573-009G	01/20/12	01/23/12	01/25/12 6:59 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E1664A

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64132

WorkOrder: 1201573

EPA Method: E1664A

Extraction: E1664A

Spiked Sample ID: 1201422-002A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
HEMSGT	ND	10.42	91.5	N/A	N/A	117	70 - 130	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 64132 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201573-001I	01/20/12	01/27/12	01/30/12 12:35 AM	1201573-002I	01/20/12	01/27/12	01/30/12 12:40 AM
1201573-003I	01/20/12	01/27/12	01/30/12 12:45 AM	1201573-004I	01/20/12	01/27/12	01/30/12 12:50 AM
1201573-005I	01/20/12	01/27/12	01/30/12 12:55 AM	1201573-006I	01/20/12	01/27/12	01/30/12 1:00 AM
1201573-008I	01/20/12	01/27/12	01/30/12 1:10 AM	1201573-009I	01/20/12	01/27/12	01/30/12 1:15 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64329

WorkOrder: 1201573

EPA Method: SW8260B

Extraction: SW5030B

Spiked Sample ID: 1201573-004A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Benzene	ND	10	99.1	96.7	2.46	88.9	70 - 130	20	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	99.2	95.4	3.90	84.6	70 - 130	20	70 - 130
Toluene	ND	10	96.5	95.5	1.02	87.3	70 - 130	20	70 - 130
%SS1:	87	25	97	96	0.747	96	70 - 130	20	70 - 130
%SS2:	106	25	114	113	0.400	114	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 64329 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201573-001A	01/20/12	01/24/12	01/24/12 2:32 PM	1201573-002A	01/20/12	01/24/12	01/24/12 3:13 PM
1201573-003A	01/20/12	01/24/12	01/24/12 3:54 PM	1201573-004A	01/20/12	01/24/12	01/24/12 1:52 PM
1201573-005A	01/20/12	01/24/12	01/24/12 4:34 PM	1201573-006A	01/20/12	01/24/12	01/24/12 5:15 PM
1201573-008A	01/20/12	01/24/12	01/24/12 9:17 PM	1201573-009A	01/20/12	01/24/12	01/24/12 10:02 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 \times (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$; $\text{RPD} = 100 \times (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR E200.7

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64215

WorkOrder: 1201573

EPA Method: E200.7

Extraction: E200.7

Spiked Sample ID: 1201141-013A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Aluminum	ND	1000	94.5	100	5.86	92.2	85 - 115	20	85 - 115
Iron	ND	1000	95.5	99	3.55	95	85 - 115	20	85 - 115
%SS:	100	750	96	98	2.65	97	70 - 130	30	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 64215 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201573-001D	01/20/12	01/23/12	02/01/12 4:33 PM	1201573-002D	01/20/12	01/23/12	02/01/12 10:27 PM
1201573-003D	01/20/12	01/23/12	02/01/12 10:30 PM	1201573-004D	01/20/12	01/23/12	02/01/12 10:33 PM
1201573-005D	01/20/12	01/23/12	02/01/12 10:36 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E200.7

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64257

WorkOrder: 1201573

EPA Method: E200.7

Extraction: E200.7

Spiked Sample ID: 1201556-001A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Aluminum	ND	1000	95.9	94.5	1.46	94.4	85 - 115	20	85 - 115
Iron	ND	1000	100	99.7	0.550	101	85 - 115	20	85 - 115
%SS:	100	750	94	96	2.18	107	70 - 130	30	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 64257 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201573-006D	01/20/12	01/23/12	02/01/12 10:39 PM	1201573-008D	01/20/12	01/23/12	02/01/12 10:44 PM
1201573-009D	01/20/12	01/23/12	02/01/12 9:24 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64158

WorkOrder: 1201573

EPA Method: SW8015B

Extraction: SW3510C

Spiked Sample ID: N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	120	N/A	N/A	70 - 130
%SS:	N/A	625	N/A	N/A	N/A	96	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 64158 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201573-001H	01/20/12	01/23/12	01/23/12 10:24 PM	1201573-002H	01/20/12	01/23/12	01/24/12 9:02 AM
1201573-003H	01/20/12	01/23/12	01/24/12 7:52 AM	1201573-004H	01/20/12	01/23/12	01/23/12 7:24 PM
1201573-005H	01/20/12	01/23/12	01/24/12 6:40 AM	1201573-006H	01/20/12	01/23/12	01/24/12 9:02 AM
1201573-008H	01/20/12	01/23/12	01/24/12 6:40 AM	1201573-009H	01/20/12	01/23/12	01/23/12 8:00 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64250

WorkOrder: 1201573

EPA Method: E200.8

Extraction: E200.8

Spiked Sample ID: 1201556-001A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Copper	25	50	104	103	0.480	108	70 - 130	20	85 - 115
Lead	ND	50	101	101	0	99.9	70 - 130	20	85 - 115
Vanadium	2.5	50	107	105	1.24	107	70 - 130	20	85 - 115
Zinc	7.0	500	104	104	0	108	70 - 130	20	85 - 115
%SS:	110	750	110	110	0	109	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 64250 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201573-001D	01/20/12	01/23/12	01/25/12 4:01 AM	1201573-002D	01/20/12	01/23/12	01/25/12 1:51 AM
1201573-003D	01/20/12	01/23/12	01/25/12 2:22 AM	1201573-004D	01/20/12	01/23/12	01/25/12 2:28 AM
1201573-005D	01/20/12	01/23/12	01/25/12 2:34 AM	1201573-006D	01/20/12	01/23/12	01/25/12 2:40 AM
1201573-008D	01/20/12	01/23/12	01/25/12 2:15 AM	1201573-009D	01/20/12	01/23/12	01/25/12 2:53 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E410.4

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64299

WorkOrder: 1201573

EPA Method: SM5220D

Extraction: SM5220D

Spiked Sample ID: 1201530-001H

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
COD	12	400	96.7	99.2	2.45	105	80 - 120	20	90 - 110

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 64299 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201573-001C	01/20/12	01/24/12	01/24/12 1:49 PM	1201573-002C	01/20/12	01/24/12	01/24/12 1:55 PM
1201573-003C	01/20/12	01/24/12	01/24/12 2:01 PM	1201573-004F	01/20/12	01/24/12	01/24/12 2:19 PM
1201573-005F	01/20/12	01/24/12	01/24/12 2:25 PM	1201573-006C	01/20/12	01/24/12	01/24/12 2:31 PM
1201573-008C	01/20/12	01/24/12	01/24/12 2:43 PM	1201573-009C	01/20/12	01/24/12	01/24/12 2:49 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: SM4500H+B (pH)

Matrix: W

WorkOrder: 1201573

Method Name: SM4500H+B			Units: \pm , pH units @ °C			BatchID: 64284
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	Precision	Acceptance Criteria
1201573-001E	7.39 @ 18.5°C	1	7.40 @ 18.5°C	1	0.01	0.05
1201573-002E	7.03 @ 17.8°C	1	7.02 @ 18.0°C	1	0.01	0.05
1201573-003E	7.41 @ 17.1°C	1	7.42 @ 17.2°C	1	0.01	0.05
1201573-004E	7.61 @ 17.5°C	1	7.60 @ 17.8°C	1	0.01	0.05
1201573-005E	7.43 @ 20.2°C	1	7.41 @ 20.4°C	1	0.02	0.05
1201573-006E	7.38 @ 19.9°C	1	7.40 @ 20.1°C	1	0.02	0.05
1201573-008E	7.75 @ 19.4°C	1	7.78 @ 19.6°C	1	0.03	0.05
1201573-009E	7.86 @ 19.8°C	1	7.84 @ 20.0°C	1	0.02	0.05

BATCH 64284 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201573-001E	01/20/12	01/23/12	01/23/12 2:36 PM	1201573-002E	01/20/12	01/23/12	01/23/12 2:42 PM
1201573-003E	01/20/12	01/23/12	01/23/12 2:48 PM	1201573-004E	01/20/12	01/23/12	01/23/12 2:54 PM
1201573-005E	01/20/12	01/23/12	01/23/12 3:00 PM	1201573-006E	01/20/12	01/23/12	01/23/12 3:06 PM
1201573-008E	01/20/12	01/23/12	01/23/12 3:18 PM	1201573-009E	01/20/12	01/23/12	01/23/12 3:24 PM

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

$RPD = 100 * (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.



QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: **SM2510B (Specific Conductivity)**

Matrix: **W**

WorkOrder: **1201573**

Method Name: SM2510B			Units: $\mu\text{mhos/cm @ } 25^{\circ}\text{C}$			BatchID: 64288
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1201573-001E	117 @ 25.0°C	1	118 @ 25.0°C	1	0.426	<2
1201573-002E	192 @ 25.0°C	1	193 @ 25.0°C	1	0.573	<2
1201573-004E	176 @ 25.0°C	1	177 @ 25.0°C	1	0.738	<2
1201573-005E	149 @ 25.0°C	1	150 @ 25.0°C	1	0.671	<2
1201573-006E	139 @ 25.0°C	1	140 @ 25.0°C	1	1.29	<2
1201573-008E	2010 @ 25.0°C	1	2010 @ 25.0°C	1	0.149	<2
1201573-009E	136 @ 25.0°C	1	137 @ 25.0°C	1	1.1	<2

BATCH 64288 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201573-001E	01/20/12	01/23/12	01/23/12 3:40 PM	1201573-002E	01/20/12	01/23/12	01/23/12 3:50 PM
1201573-004E	01/20/12	01/23/12	01/23/12 4:00 PM	1201573-005E	01/20/12	01/23/12	01/23/12 4:10 PM
1201573-006E	01/20/12	01/23/12	01/23/12 4:20 PM	1201573-008E	01/20/12	01/23/12	01/23/12 4:40 PM
1201573-009E	01/20/12	01/23/12	01/23/12 4:50 PM				

Test Method: **SM2510B (Specific Conductivity)**

Matrix: **W**

WorkOrder: **1201573**

Method Name: SM2510B			Units: $\mu\text{mhos/cm @ } 25^{\circ}\text{C}$			BatchID: 64345
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1201573-003E	4350 @ 23.2°C	1	4350 @ 23.2°C	1	0.046	<2

BATCH 64345 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201573-003E	01/20/12	01/26/12	01/26/12 5:00 PM				

Dup = Duplicate; SD = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

$\text{RPD} = 100 * (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: SM2540D (TSS)

Matrix: W

WorkOrder: 1201573

Method Name: SM2540D			Units: mg/L		BatchID: 64318	
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1201573-001F	48.0	10	49.0	10	2.06	<15
1201573-002F	330	50	330	50	0	<15
1201573-003F	68.0	5	67.0	5	1.48	<15
1201573-004F	17.6	2	20.4	2	14.7	<15
1201573-005F	8.40	2	8.40	2	0	<15
1201573-006F	10.8	2	11.4	2	5.41	<15
1201573-008F	220	25	230	25	4.44	<15
1201573-009F	3.20	2	3.40	2	6.06	<15

BATCH 64318 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201573-001F	01/20/12	01/25/12	01/25/12 7:20 PM	1201573-002F	01/20/12	01/25/12	01/25/12 7:30 PM
1201573-003F	01/20/12	01/25/12	01/25/12 7:40 PM	1201573-004F	01/20/12	01/25/12	01/25/12 7:50 PM
1201573-005F	01/20/12	01/25/12	01/25/12 8:00 PM	1201573-006F	01/20/12	01/25/12	01/25/12 8:10 PM
1201573-008F	01/20/12	01/25/12	01/25/12 8:30 PM	1201573-009F	01/20/12	01/25/12	01/25/12 8:40 PM

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

$RPD = 100 * (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.

Certified Laboratory Analytical Report Annual Sampling Events

February 7, 2012



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mcccampbell.com> / E-mail: main@mcccampbell.com

Analytical Report

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 02/07/12
		Date Received: 02/08/12
	Client Contact: Helen Mawhinney	Date Reported: 02/15/12
	Client P.O.: #TL22448	Date Completed: 02/15/12

WorkOrder: 1202222

February 15, 2012

Dear Helen:

Enclosed within are:

- 1) The results of the 4 analyzed samples from your project: **LRT First Annual Stormwater Sampling Event**,
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

Relinquished By: <i>[Signature]</i>	Date: 2-7-12	Time: 240	Received By: ETS Fridge Helen M	ICE# <i>5.0</i> Always on ice	COMMENTS: Report TPHd, TOG, O&G separately EPA Methods can be changed by the lab to what they recommended without pre-approval providing compliant with 40 CFR 136 NOTE: SW-1, SW-7, S PARR SW-10, S PARR SW-11, N PARR SW-12 ARE NOT DISCHARGING. AN ACTIVE STOCKPILE IS IN DIRECT AREA OF SW-3 SO CANT SAMPLE VOAS O&G METALS OTHER PRESERVATION pH<2
Relinquished By: <i>ETS Fridge</i>	Date: 2-8-12	Time: 130	Received By: <i>[Signature]</i>	GOOD CONDITION HEAD SPACE ABSENT DECHLORINATED IN LAB APPROPRIATE CONTAINERS PRESERVED IN LAB	
Relinquished By: <i>[Signature]</i>	Date: 2/8/12	Time: 1450	Received By: <i>[Signature]</i>	* Don'ts are ETS Info - Do not add to report pH<2	

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1202222

ClientCode: ETS

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☒ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
510-385-4308 FAX: 510-522-6259

Email: HMawhinneyETS@aol.com; james.jimenez
cc:
PO: #TL22448
ProjectNo: LRT First Annual Stormwater Sampling
Event

Bill to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
james.jimenez@sbcglobal.net

Requested TAT: 5 days

Date Received: 02/08/2012

Date Printed: 02/08/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1202222-001	SW-2	Water	2/7/2012 9:15	<input type="checkbox"/>	I	G	D	C	A	D	E	E	B	H	F	
1202222-002	SW-4	Water	2/7/2012 10:10	<input type="checkbox"/>	I	G	D	C	A	D	E	E	B	H	F	
1202222-003	SW-5	Water	2/7/2012 11:46	<input type="checkbox"/>	I	G	D	C	A	D	E	E	B	H	F	
1202222-004	SW-6	Water	2/7/2012 12:01	<input type="checkbox"/>	I	G	D	C	A	D	E	E	B	H	F	

Test Legend:

1	1664A_W	2	8081_W	3	ALKIMET_W	4	COD_W	5	GAS8260_W
6	METALSMS_W	7	PH_W	8	SC_W	9	TOC_W	10	TPH(DMO)_W
11	TSS_W	12							

The following Sample IDs: 001A, 002A, 003A, 004A contain testgroup.

Prepared by: Zoraida Cortez

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Sample Receipt Checklist

Client Name: **Environmental Technical Services**

Date and Time Received: **2/8/2012 3:43:16 PM**

Project Name: **LRT First Annual Stormwater Sampling Event**

Checklist completed and reviewed by: **Zoraida Cortez**

WorkOrder N°: **1202222**

Matrix: Water

Carrier: Courier

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

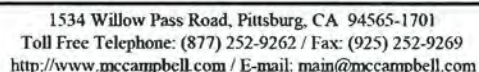
Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 5.4°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Comments: pH was received OUT of hold time.



AR Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 02/07/12
	Client Contact: Helen Mawhinney	Date Received: 02/08/12
	Client P.O.: #TL22448	Date Extracted: 02/08/12
		Date Analyzed: 02/09/12-02/10/12

Organochlorine Pesticides by GC-ECD (8080 Basic Target List)*

Extraction Method: SW3510C

Analytical Method: SW8081A

Work Order: 1202222

Lab ID	1202222-001G	1202222-002G	1202222-003G	1202222-004G	Reporting Limit for DF = 1	
Client ID	SW-2	SW-4	SW-5	SW-6		
Matrix	W	W	W	W	S	W
DF	1	1	1	1		
Compound	Concentration				µg/kg	µg/L
Aldrin	ND	ND	ND	ND	NA	0.005
a-BHC	ND	ND	ND	ND	NA	0.01
b-BHC	ND	ND	ND	ND	NA	0.005
d-BHC	ND	ND	ND	ND	NA	0.005
g-BHC	ND	ND	ND	ND	NA	0.02
Chlordane (Technical)	ND	ND	ND	ND	NA	0.1
a-Chlordane	ND	ND	ND	ND	NA	0.05
g-Chlordane	ND	ND	ND	ND	NA	0.05
p,p-DDD	ND	ND	ND	ND	NA	0.01
p,p-DDE	ND	ND	ND	ND	NA	0.01
p,p-DDT	ND	ND	ND	ND	NA	0.01
Dieldrin	ND	ND	ND	ND	NA	0.01
Endosulfan I	ND	ND	ND	ND	NA	0.02
Endosulfan II	ND	ND	ND	ND	NA	0.02
Endosulfan sulfate	ND	ND	ND	ND	NA	0.05
Endrin	ND	ND	ND	ND	NA	0.01
Endrin aldehyde	ND	ND	ND	ND	NA	0.05
Endrin ketone	ND	ND	ND	ND	NA	0.05
Heptachlor	ND	ND	ND	ND	NA	0.01
Heptachlor epoxide	ND	ND	ND	ND	NA	0.01
Hexachlorobenzene	ND	ND	ND	ND	NA	0.5
Hexachlorocyclopentadiene	ND	ND	ND	ND	NA	1.0
Methoxychlor	ND	ND	ND	ND	NA	0.1
Toxaphene	ND	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS:	92	96	96	104	
Comments					

* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor.

surrogate diluted out of range or surrogate coelutes with another peak.



1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

*water samples are reported in ug/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in ug/wipe, filter samples in ug/filter.

means surrogate recovery outside of acceptance range due to matrix interference; & means low or no surrogate due to matrix interference; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

TOTAL = Hot acid digestion of a representative sample aliquot.

TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.

DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

 Angela Rydelius, Lab Manager

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 02/07/12
		Date Received: 02/08/12
	Client Contact: Helen Mawhinney	Date Extracted: 02/15/12
	Client P.O.: #TL22448	Date Analyzed: 02/15/12

Chemical Oxygen Demand (COD)*

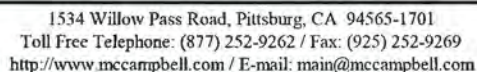
Analytical Method: SM5220D

Work Order: 1202222

[illegible]

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 mg/L
	S	NA

*water/product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.



**McC Campbell Analytical, Inc.***"When Quality Counts"*1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 02/07/12
		Date Received: 02/08/12
	Client Contact: Helen Mawhinney	Date Extracted: 02/09/12
	Client P.O.: #TL22448	Date Analyzed: 02/09/12

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 120222

Lab ID	1202222-001A	1202222-002A	1202222-003A	1202222-004A	Reporting Limit for DF = 1	
Client ID	SW-2	SW-4	SW-5	SW-6		
Matrix	W	W	W	W		
DF	1	1	1	1		

Compound	Concentration				ug/kg	µg/L
Benzene	ND	ND	ND	ND	NA	0.5
Ethylbenzene	ND	ND	ND	ND	NA	0.5
Methyl-t-butyl ether (MTBE)	ND	ND	ND	ND	NA	0.5
Toluene	ND	ND	ND	ND	NA	0.5
Xylenes, Total	ND	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	97	98	97	97	
%SS2:	104	104	104	103	
Comments					

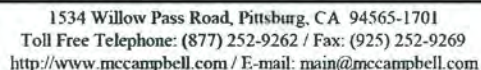
* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor



 Angela Rydelius, Lab Manager



1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

[illegible]

Method Accuracy and Reporting Units	W	±0.05, pH units @ °C
	S	NA

* According to the formal method, this is "field test" with a 15 minute Hold Time. However, as this is unrealistically short for commercial environmental analysis, MAI has designated a 24 hour hold time for aqueous samples.

DF = Dilution Factor



1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Environmental Technical Services	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 02/07/12
		Date Received: 02/08/12
1548 Jacob Avenue	Client Contact: Helen Mawhinney	Date Extracted: 02/09/12
San Jose, CA 95118	Client P.O.: #TL22448	Date Analyzed: 02/09/12

Specific Conductivity*

Analytical Method: SM2510B

Work Order: 1202222

[illegible]

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 μ mhos/cm @ 25°C
	S	NA

DF = Dilution Factor



1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 02/07/12
		Date Received: 02/08/12
	Client Contact: Helen Mawhinney	Date Extracted: 02/13/12
	Client P.O.: #TL22448	Date Analyzed: 02/13/12

Total Organic Carbon (TOC) reported as NPOC*

Analytical Method: E415.3

Work Order: 1202222

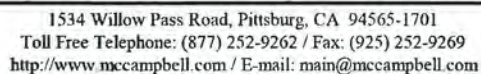
[illegible]

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.3 mg/L
	S	NA

* water samples are reported in mg/L. Settleable solids and floatable matter are excluded from analysis per E415.3. TOC is reported as NPOC.

TOC = Total Organic Carbon; NPOC = Non-Purgeable Organic Carbon; DOC = Dissolved Organic Carbon; POC = Purgeable Organic Carbon; IC = Inorganic Carbon; TC = Total Carbon.

DF = Dilution Factor



 Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT First Annual Stormwater Sampling Event	Date Sampled: 02/07/12
		Date Received: 02/08/12
	Client Contact: Helen Mawhinney	Date Extracted: 02/10/12-02/13/12
	Client P.O.: #TL22448	Date Analyzed: 02/10/12-02/13/12

Total Suspended Solids*

Analytical Method: SM2540D

Work Order: 1202222

Lab ID	Client ID	Matrix	Total Suspended Solids	DF	Comments
1202222-001F	SW-2	W	73.5	5	
1202222-002F	SW-4	W	16.4	2	
1202222-003F	SW-5	W	15.4	2	
1202222-004F	SW-6	W	12.6	2	

Reporting Limit for DF = 1; ND means not detected at or above the
reporting limit

W

1.0 mg/L

S

NA

* water samples reported in mg/L.

DF = Dilution Factor



QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64705

WorkOrder: 1202222

EPA Method: SW8015B		Extraction: SW3510C					Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	104	N/A	N/A	70 - 130
%SS:	N/A	625	N/A	N/A	N/A	93	N/A	N/A	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 64705 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202222-001H	02/07/12 9:15 AM	02/08/12	02/08/12 7:49 PM	1202222-002H	02/07/12 10:10 AM	02/08/12	02/08/12 8:56 PM
1202222-003H	02/07/12 11:46 AM	02/08/12	02/08/12 8:47 PM	1202222-004H	02/07/12 12:01 PM	02/08/12	02/08/12 8:47 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR E1664A

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64752

WorkOrder: 1202222

EPA Method: E1664A

Extraction: E1664A

Spiked Sample ID: N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
HEMSGT	N/A	10.42	N/A	N/A	N/A	90.3	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 64752 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202222-001I	02/07/12 9:15 AM	02/13/12	02/14/12 10:25 AM	1202222-002I	02/07/12 10:10 AM	02/13/12	02/14/12 10:30 AM
1202222-003I	02/07/12 11:46 AM	02/13/12	02/14/12 10:35 AM	1202222-004I	02/07/12 12:01 PM	02/13/12	02/14/12 10:40 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.


% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8081A

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64742

WorkOrder: 1202222

EPA Method: SW8081A		Extraction: SW3510C		Spiked Sample ID: N/A					
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Aldrin	N/A	0.50	N/A	N/A	N/A	104	N/A	N/A	70 - 130
g-BHC	N/A	0.50	N/A	N/A	N/A	96.2	N/A	N/A	70 - 130
p,p-DDT	N/A	1.25	N/A	N/A	N/A	92.7	N/A	N/A	70 - 130
Dieldrin	N/A	1.25	N/A	N/A	N/A	111	N/A	N/A	70 - 130
Endrin	N/A	1.25	N/A	N/A	N/A	113	N/A	N/A	70 - 130
Heptachlor	N/A	0.50	N/A	N/A	N/A	93.3	N/A	N/A	70 - 130
%SS:	N/A	1.25	N/A	N/A	N/A	111	N/A	N/A	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 64742 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202222-001G	02/07/12 9:15 AM	02/08/12	02/10/12 10:05 PM	1202222-002G	02/07/12 10:10 AM	02/08/12	02/10/12 12:40 AM
1202222-003G	02/07/12 11:46 AM	02/08/12	02/10/12 1:36 AM	1202222-004G	02/07/12 12:01 PM	02/08/12	02/09/12 9:35 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.


% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



QC SUMMARY REPORT FOR E200.7

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64750

WorkOrder: 1202222

EPA Method: E200.7		Extraction: E200.7					Spiked Sample ID: 1202104-003A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Aluminum	ND	1000	92.9	91.4	1.57	88.8	85 - 115	20	85 - 115
Iron	ND	1000	93	92.5	0.636	87.5	85 - 115	20	85 - 115
%SS:	98	750	95	97	1.60	103	70 - 130	30	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 64750 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202222-001D	02/07/12 9:15 AM	02/08/12	02/09/12 11:48 PM	1202222-002D	02/07/12 10:10 AM	02/08/12	02/09/12 11:51 PM
1202222-003D	02/07/12 11:46 AM	02/08/12	02/09/12 11:54 PM	1202222-004D	02/07/12 12:01 PM	02/08/12	02/09/12 11:57 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount\ Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

QC SUMMARY REPORT FOR E410.4

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64887

WorkOrder: 1202222

EPA Method: SM5220D

Extraction: SM5220D

Spiked Sample ID: 1202212-003A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
COD	130	400	90.7	86.9	3.11	106	80 - 120	20	90 - 110

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 64887 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202222-001C	02/07/12 9:15 AM	02/15/12	02/15/12 10:21 AM	1202222-002C	02/07/12 10:10 AM	02/15/12	02/15/12 10:27 AM
1202222-003C	02/07/12 11:46 AM	02/15/12	02/15/12 10:33 AM	1202222-004C	02/07/12 12:01 PM	02/15/12	02/15/12 10:39 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.


% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; $RPD = 100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64805

WorkOrder: 1202222

EPA Method: SW8260B		Extraction: SW5030B				Spiked Sample ID: 1202222-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Benzene	ND	10	94.6	94.7	0.123	97.6	70 - 130	20	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	95.8	98.8	3.13	95.9	70 - 130	20	70 - 130
Toluene	ND	10	92.1	92.2	0.149	95.4	70 - 130	20	70 - 130
%SS1:	97	25	98	100	2.35	99	70 - 130	20	70 - 130
%SS2:	104	25	104	105	0.613	107	70 - 130	20	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 64805 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202222-001A	02/07/12 9:15 AM	02/09/12	02/09/12 12:35 PM	1202222-002A	02/07/12 10:10 AM	02/09/12	02/09/12 1:21 PM
1202222-003A	02/07/12 11:46 AM	02/09/12	02/09/12 2:01 PM	1202222-004A	02/07/12 12:01 PM	02/09/12	02/09/12 2:41 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount\ Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64721

WorkOrder: 1202222

EPA Method: E200.8		Extraction: E200.8		Spiked Sample ID: 1202104-002A					
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Copper	21	50	103	101	1.19	106	85 - 115	20	85 - 115
Lead	ND	50	95.9	95	0.939	96.9	85 - 115	20	85 - 115
Vanadium	1.8	50	101	102	0.854	102	85 - 115	20	85 - 115
Zinc	5.4	500	104	103	1.36	107	85 - 115	20	85 - 115
%SS:	107	750	106	104	1.78	105	70 - 130	20	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 64721 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202222-001D	02/07/12 9:15 AM	02/08/12	02/09/12 2:56 PM	1202222-002D	02/07/12 10:10 AM	02/08/12	02/08/12 11:30 PM
1202222-003D	02/07/12 11:46 AM	02/08/12	02/08/12 11:55 PM	1202222-004D	02/07/12 12:01 PM	02/08/12	02/09/12 12:01 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: SM4500H+B (pH)

Matrix: W

WorkOrder: 1202222

Method Name: SM4500H+B			Units: \pm , pH units @ °C			BatchID: 64724
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	Precision	Acceptance Criteria
1202222-001E	7.76 @ 18.0°C	1	7.76 @ 18.2°C	1	0	0.05
1202222-002E	7.70 @ 17.0°C	1	7.67 @ 17.1°C	1	0.03	0.05
1202222-003E	7.50 @ 16.1°C	1	7.50 @ 16.4°C	1	0	0.05
1202222-004E	7.59 @ 16.3°C	1	7.63 @ 16.4°C	1	0.04	0.05

BATCH 64724 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202222-001E	02/07/12 9:15 AM	02/08/12	02/08/12 7:30 PM	1202222-002E	02/07/12 10:10 AM	02/08/12	02/08/12 7:36 PM
1202222-003E	02/07/12 11:46 AM	02/08/12	02/08/12 7:42 PM	1202222-004E	02/07/12 12:01 PM	02/08/12	02/08/12 7:48 PM

Test Method: SM2510B (Specific Conductivity)

Matrix: W

WorkOrder: 1202222

Method Name: SM2510B			Units: μ mhos/cm @ 25°C			BatchID: 64723
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1202222-001E	157 @ 25.0°C	1	158 @ 25.0°C	1	0.764	<2
1202222-002E	99.4 @ 25.0°C	1	101 @ 25.0°C	1	1.73	<2
1202222-003E	106 @ 25.0°C	1	107 @ 25.0°C	1	0.656	<2
1202222-004E	105 @ 25.0°C	1	105 @ 25.0°C	1	0.762	<2

BATCH 64723 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202222-001E	02/07/12 9:15 AM	02/09/12	02/09/12 7:30 PM	1202222-002E	02/07/12 10:10 AM	02/09/12	02/09/12 7:40 PM
1202222-003E	02/07/12 11:46 AM	02/09/12	02/09/12 7:50 PM	1202222-004E	02/07/12 12:01 PM	02/09/12	02/09/12 8:00 PM

Dup = Duplicate; SD = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

RPD = $100 \times (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: **SM2540D (TSS)**

Matrix: **W**

WorkOrder: **1202222**

Method Name: SM2540D			Units: mg/L		BatchID: 64848	
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1202222-001F	73.5	5	79.0	5	7.21	<15
1202222-002F	16.4	2	15.5	5	5.64	<15
1202222-003F	15.4	2	15.6	2	1.29	<15
1202222-004F	12.6	2	12.2	2	3.23	<15

BATCH 64848 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202222-001F	02/07/12 9:15 AM	02/10/12	02/10/12 6:35 PM	1202222-002F	02/07/12 10:10 AM	02/13/12	02/13/12 5:35 PM
1202222-003F	02/07/12 11:46 AM	02/10/12	02/10/12 6:55 PM	1202222-004F	02/07/12 12:01 PM	02/10/12	02/10/12 7:05 PM

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

$RPD = 100 * (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.



QC SUMMARY REPORT FOR E415.3

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64884

WorkOrder: 1202222

EPA Method: E415.3		Extraction: E415.3					Spiked Sample ID: 1202189-001D		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TOC	8.5	50	96.9	96.9	0	98	70 - 130	20	80 - 120
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 64884 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202222-001B	02/07/12 9:15 AM	02/13/12	02/13/12 8:51 PM	1202222-002B	02/07/12 10:10 AM	02/13/12	02/13/12 9:13 PM
1202222-003B	02/07/12 11:46 AM	02/13/12	02/13/12 9:29 PM	1202222-004B	02/07/12 12:01 PM	02/13/12	02/13/12 9:47 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Certified Laboratory Analytical Report Annual Sampling Events

March 14, 2012



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Analytical Report

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT Annual March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Reported: 03/27/12
	Client P.O.: #TL22474	Date Completed: 03/26/12

WorkOrder: 1203539

March 27, 2012

Dear Helen:

Enclosed within are:

- 1) The results of the **8** analyzed samples from your project: **LRT Annual March 2012**,
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing
McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) ☐
☐ Check if sample is effluent and "J" flag is required

Report To: ENVIRON TECH SERVICES Bill To: ETS
Company: Helen Mawhinney
1548 LACOB AVE
SAINT JOSE, CA 95118 E-Mail: h.mawhinney@ets-e.com
Tele: (431) 236-9221 Fax: ()
Project #: LRT ANNUAL MARCH 2012 Project Name: LRT ANNUAL MA
Project Location: Legun Rich Terminal 402 Wright Ave 2012
Sampler Signature: Helen Mawhinney

Analysis Request

Other	Comments
-------	----------



****Indicate here if these samples are potentially dangerous to handle:**

[illegible]

***MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.**

Relinquished By: <i>[Signature]</i>	Date: <i>3/14/12</i>	Time: <i>4:31</i>	Received By: <i>ETS FRIACE</i>
-------------------------------------	----------------------	-------------------	--------------------------------

Relinquished By:	Date:	Time:	Received By:
ETB Fringe	7/5/12	4:15	

Relinquished By:	Date:	Time:	Received By:
	3/15/12	170	

ICE/° <u>1.2</u>	COMMENTS:			
GOOD CONDITION _____	SW 7 + SW 10 Not discharging TTC AL, CU, FE, PB, VN, ZN			
HEAD SPACE ABSENT _____				
DECHLORINATED IN LAB _____				
APPROPRIATE CONTAINERS _____				
PRESERVED IN LAB _____				
	VOAS	O&G	METALS	OTHER
PRESERVATION			pH < 2	

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1203539

ClientCode: ETS

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☒ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
510-385-4308 FAX: 510-522-6259

Email: HMawhinneyETS@aol.com; james.jimenez
cc:
PO:
ProjectNo: LRT Annual March 2012

Bill to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118

Requested TAT: 5 days

Date Received: 03/15/2012

Date Printed: 03/16/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1203539-001	SW-1	Water	3/14/2012 7:40	<input type="checkbox"/>	E	F	I	C	A	I	G	B	D	H		
1203539-002	SW-2	Water	3/14/2012 7:10	<input type="checkbox"/>	E	F	I	C	A	I	G	B	D	H		
1203539-003	SW-3	Water	3/14/2012 14:10	<input type="checkbox"/>	E	F	I	C	A	I	G	B	D	H		
1203539-004	SW-4	Water	3/14/2012 13:05	<input type="checkbox"/>	E	F	I	C	A	I	G	B	D	H		
1203539-005	SW-5	Water	3/14/2012 13:15	<input type="checkbox"/>	E	F	I	C	A	I	G	B	D	H		
1203539-006	SW-6	Water	3/14/2012 13:25	<input type="checkbox"/>	E	F	I	C	A	I	G	B	D	H		
1203539-007	S PARR SW-11	Water	3/14/2012 14:45	<input type="checkbox"/>	E	F	I	C	A	I	G	B	D	H		
1203539-008	N PARR SW-12	Water	3/14/2012 15:10	<input type="checkbox"/>	E	F	I	C	A	I	G	B	D	H		

Test Legend:

1	1664A_SG_W	2	8081PCB_W	3	ALKIMET_W	4	COD_W	5	GAS8260_W
6	METALSMS_W	7	SC_W	8	TOC_W	9	TPH(DMO)_W	10	TSS_W
11		12							

The following SampleIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A contain testgroup.

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Environmental Technical Services**

Date and Time Received: **3/15/2012 6:47:45 PM**

Project Name: **LRT Annual March 2012**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **1203539** Matrix: **Water**

Carrier: **Rob Pringle (MAI Courier)**

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 1.2°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Comments:



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT Annual March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Extracted: 03/21/12
	Client P.O.: #TL22474	Date Analyzed: 03/22/12

Hexane Extractable Material with Silica Gel Clean Up*

Extraction method: E1664A

Analytical methods: E1664A

Work Order: 1203539

Lab ID	Client ID	Matrix	HEMSGT	DF	% SS	Comments
1203539-001E	SW-1	W	ND	1	N/A	
1203539-002E	SW-2	W	ND	1	N/A	
1203539-003E	SW-3	W	ND	1	N/A	
1203539-004E	SW-4	W	ND	1	N/A	
1203539-005E	SW-5	W	ND	1	N/A	
1203539-006E	SW-6	W	ND	1	N/A	
1203539-007E	S PARR SW-11	W	ND	1	N/A	
1203539-008E	N PARR SW-12	W	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	5.0	mg/L
	S	NA	NA

* water samples are reported in mg/L; reporting limit may change due to variable water sample volume.

DF = dilution factor (may be raised to dilute target analyte or matrix interference).

%SS = Percent Recovery of Surrogate Standard

surrogate diluted out of range or not applicable to this sample.

DHS ELAP Certification 1644

 Angela Rydelius, Lab Manager

**McC Campbell Analytical, Inc.***"When Quality Counts"*1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT Annual March 2012	Date Sampled: 03/14/12
	Client Contact: Helen Mawhinney	Date Received: 03/15/12
	Client P.O.: #TL22474	Date Extracted: 03/15/12
		Date Analyzed: 03/25/12

Organochlorine Pesticides by GC-ECD (8080 Basic Target List) + PCBs*

Extraction Method: SW3510C

Analytical Method: SW8081A/8082

Work Order: 1203539

Lab ID	1203539-001F	1203539-002F	1203539-003F	1203539-004F	Reporting Limit for DF = 1	
Client ID	SW-1	SW-2	SW-3	SW-4		
Matrix	W	W	W	W	S	W
DF	1	1	1	1		
Compound	Concentration				µg/kg	µg/L
Aldrin	ND	ND	ND	ND	NA	0.005
a-BHC	ND	ND	ND	ND	NA	0.01
b-BHC	ND	ND	ND	ND	NA	0.005
d-BHC	ND	ND	ND	ND	NA	0.005
g-BHC	ND	ND	ND	ND	NA	0.02
Chlordane (Technical)	ND	ND	ND	ND	NA	0.1
a-Chlordane	ND	ND	ND	ND	NA	0.05
g-Chlordane	ND	ND	ND	ND	NA	0.05
p,p-DDD	ND	ND	ND	ND	NA	0.01
p,p-DDE	ND	ND	ND	ND	NA	0.01
p,p-DDT	ND	ND	ND	ND	NA	0.01
Dieldrin	ND	ND	ND	ND	NA	0.01
Endosulfan I	ND	ND	ND	ND	NA	0.02
Endosulfan II	ND	ND	ND	ND	NA	0.02
Endosulfan sulfate	ND	ND	ND	ND	NA	0.05
Endrin	ND	ND	ND	ND	NA	0.01
Endrin aldehyde	ND	ND	ND	ND	NA	0.05
Endrin ketone	ND	ND	ND	ND	NA	0.05
Heptachlor	ND	ND	ND	ND	NA	0.01
Heptachlor epoxide	ND	ND	ND	ND	NA	0.01
Hexachlorobenzene	ND	ND	ND	ND	NA	0.5
Hexachlorocyclopentadiene	ND	ND	ND	ND	NA	1.0
Methoxychlor	ND	ND	ND	ND	NA	0.1
Toxaphene	ND	ND	ND	ND	NA	0.5
Aroclor1016	ND	ND	ND	ND	NA	0.5
Aroclor1221	ND	ND	ND	ND	NA	0.5
Aroclor1232	ND	ND	ND	ND	NA	0.5
Aroclor1242	ND	ND	ND	ND	NA	0.5
Aroclor1248	ND	ND	ND	ND	NA	0.5
Aroclor1254	ND	ND	ND	ND	NA	0.5
Aroclor1260	ND	ND	ND	ND	NA	0.5
PCBs, total	ND	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS:	82	82	83	83	
Comments					

* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor.

surrogate diluted out of range or surrogate coelutes with another peak.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT Annual March 2012	Date Sampled: 03/14/12
	Client Contact: Helen Mawhinney	Date Received: 03/15/12
	Client P.O.: #TL22474	Date Extracted: 03/15/12
		Date Analyzed: 03/25/12

Organochlorine Pesticides by GC-ECD (8080 Basic Target List) + PCBs*

Extraction Method: SW3510C

Analytical Method: SW8081A/8082

Work Order: 1203539

Lab ID	1203539-005F	1203539-006F	1203539-007F	1203539-008F	Reporting Limit for DF = 1	
Client ID	SW-5	SW-6	S PARR SW-11	N PARR SW-12		
Matrix	W	W	W	W	S	W
DF	1	1	1	1		
Compound	Concentration				µg/kg	µg/L
Aldrin	ND	ND	ND	ND	NA	0.005
a-BHC	ND	ND	ND	ND	NA	0.01
b-BHC	ND	ND	ND	ND	NA	0.005
d-BHC	ND	ND	ND	ND	NA	0.005
g-BHC	ND	ND	ND	ND	NA	0.02
Chlordane (Technical)	ND	ND	ND	ND	NA	0.1
a-Chlordane	ND	ND	ND	ND	NA	0.05
g-Chlordane	ND	ND	ND	ND	NA	0.05
p,p-DDD	ND	ND	ND	ND	NA	0.01
p,p-DDE	ND	0.012	ND	ND	NA	0.01
p,p-DDT	ND	0.012	ND	ND	NA	0.01
Dieldrin	ND	ND	ND	ND	NA	0.01
Endosulfan I	ND	ND	ND	ND	NA	0.02
Endosulfan II	ND	ND	ND	ND	NA	0.02
Endosulfan sulfate	ND	ND	ND	ND	NA	0.05
Endrin	ND	ND	ND	ND	NA	0.01
Endrin aldehyde	ND	ND	ND	ND	NA	0.05
Endrin ketone	ND	ND	ND	ND	NA	0.05
Heptachlor	ND	ND	ND	ND	NA	0.01
Heptachlor epoxide	ND	ND	ND	ND	NA	0.01
Hexachlorobenzene	ND	ND	ND	ND	NA	0.5
Hexachlorocyclopentadiene	ND	ND	ND	ND	NA	1.0
Methoxychlor	ND	ND	ND	ND	NA	0.1
Toxaphene	ND	ND	ND	ND	NA	0.5
Aroclor1016	ND	ND	ND	ND	NA	0.5
Aroclor1221	ND	ND	ND	ND	NA	0.5
Aroclor1232	ND	ND	ND	ND	NA	0.5
Aroclor1242	ND	ND	ND	ND	NA	0.5
Aroclor1248	ND	ND	ND	ND	NA	0.5
Aroclor1254	ND	ND	ND	ND	NA	0.5
Aroclor1260	ND	ND	ND	ND	NA	0.5
PCBs, total	ND	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS:	83	83	86	83	
Comments					

* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor.

surrogate diluted out of range or surrogate coelutes with another peak.

AR



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT Annual March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Extracted: 03/15/12
	Client P.O.:	Date Analyzed: 03/20/12

Alkali Metals by ICP*

Extraction method: E200.7

Analytical methods: E200.7

Work Order: 1203539

Lab ID	Client ID	Matrix	Extraction Type	Aluminum	Iron	DF	% SS	Comments
001I	SW-1	W	TOTAL	250	750	1	100	
002I	SW-2	W	TOTAL	2400	5600	1	101	
003I	SW-3	W	TOTAL	320	1900	1	101	
004I	SW-4	W	TOTAL	600	2300	1	109	
005I	SW-5	W	TOTAL	380	1300	1	106	
006I	SW-6	W	TOTAL	190	360	1	106	
007I	S PARR SW-11	W	TOTAL	600	1200	1	103	
008I	N PARR SW-12	W	TOTAL	350	740	1	104	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	50	20	µg/L
	S	TOTAL	NA	NA	NA

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate recovery outside of acceptance range due to matrix interference; & means low or no surrogate due to matrix interference; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

TOTAL = Hot acid digestion of a representative sample aliquot.

TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.

DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

DHS ELAP Certification 1644

 Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services

1548 Jacob Avenue

San Jose, CA 95118

Client Project ID: LRT Annual March
2012

Client Contact: Helen Mawhinney

Client P.O.: #TL22474

Date Sampled: 03/14/12

Date Received: 03/15/12

Date Extracted: 03/22/12

Date Analyzed: 03/22/12

Chemical Oxygen Demand (COD)*

Analytical Method: SM5220D

Work Order: 1203539

Lab ID	Client ID	Matrix	COD	DF	Comments
1203539-001C	SW-1	W	22	1	
1203539-002C	SW-2	W	210	1	
1203539-003C	SW-3	W	43	1	
1203539-004C	SW-4	W	12	1	
1203539-005C	SW-5	W	12	1	
1203539-006C	SW-6	W	ND	1	
1203539-007C	S PARR SW-11	W	200	1	
1203539-008C	N PARR SW-12	W	22	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit

W

10 mg/L

S

NA

*water/product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT Annual March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Extracted 03/16/12-03/17/12
	Client P.O.:	Date Analyzed 03/16/12-03/17/12

TPH(g) by Purge & Trap and GC/MS*

Extraction method: SW5030B

Analytical methods: SW8260B

Work Order: 1203539

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS	Comments
001A	SW-1	W	ND	1	119	
002A	SW-2	W	ND	1	114	
003A	SW-3	W	ND	1	116	
004A	SW-4	W	ND	1	119	
005A	SW-5	W	ND	1	118	
006A	SW-6	W	ND	1	117	
007A	S PARR SW-11	W	ND	1	120	
008A	N PARR SW-12	W	ND	1	119	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT Annual March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Extracted: 03/16/12-03/17/12
	Client P.O.:	Date Analyzed: 03/16/12-03/17/12

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1203539

Lab ID	1203539-001A	1203539-002A	1203539-003A	1203539-004A	Reporting Limit for DF = 1	
Client ID	SW-1	SW-2	SW-3	SW-4		
Matrix	W	W	W	W		
DF	1	1	1	1		
					S	W

Compound	Concentration				ug/kg	µg/L
Benzene	ND	ND	ND	ND	NA	0.5
Ethylbenzene	ND	ND	ND	ND	NA	0.5
Methyl-t-butyl ether (MTBE)	ND	ND	ND	ND	NA	0.5
Toluene	ND	ND	ND	ND	NA	0.5
Xylenes, Total	ND	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	108	108	108	110	
%SS2:	108	103	104	107	
Comments					

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor

**McC Campbell Analytical, Inc.***"When Quality Counts"*1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mcccampbell.com> / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT Annual March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Extracted: 03/16/12-03/17/12
	Client P.O.:	Date Analyzed: 03/16/12-03/17/12

MTBE and BTEX by GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1203539

Lab ID	1203539-005A	1203539-006A	1203539-007A	1203539-008A	Reporting Limit for DF = 1	
Client ID	SW-5	SW-6	S PARR SW-11	N PARR SW-12		
Matrix	W	W	W	W		
DF	1	1	1	1		
Compound	Concentration				ug/kg	ug/L
Benzene	ND	ND	ND	ND	NA	0.5
Ethylbenzene	ND	ND	ND	ND	NA	0.5
Methyl-t-butyl ether (MTBE)	ND	ND	ND	ND	NA	0.5
Toluene	ND	ND	ND	ND	NA	0.5
Xylenes, Total	ND	ND	ND	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	111	109	110	110	
%SS2:	107	106	108	107	
Comments					

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT Annual March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Extracted: 03/15/12
	Client P.O.:	Date Analyzed: 03/17/12-03/19/12

Metals*

Extraction method: E200.8

Analytical methods: E200.8

Work Order: 1203539

Lab ID	Client ID	Matrix	Extraction Type	Copper	Lead	Vanadium	Zinc	DF	% SS	Comments
001I	SW-1	W	TOTAL	7.0	12	2.5	140	1	101	
002I	SW-2	W	TOTAL	9.5	12	24	100	1	103	
003I	SW-3	W	TOTAL	18	15	10	260	1	103	
004I	SW-4	W	TOTAL	22	17	5.5	77	1	102	
005I	SW-5	W	TOTAL	25	13	4.0	61	1	101	
006I	SW-6	W	TOTAL	52	27	3.1	78	1	102	
007I	S PARR SW-11	W	TOTAL	11	5.0	66	46	1	104	
008I	N PARR SW-12	W	TOTAL	7.8	7.3	6.0	57	1	102	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	0.5	0.5	0.5	5.0	µg/L
	S	TOTAL	NA	NA	NA	NA	NA

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / WET / DI WET / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.

TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.

DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT Annual March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Extracted: 03/16/12
	Client P.O.:	Date Analyzed: 03/16/12

Specific Conductivity*

Analytical Method: SM2510B

Work Order: 1203539

Lab ID	Client ID	Matrix	Specific Conductivity	DF	Comments
1203539-001G	SW-1	W	38.8 @ 25.0°C	1	
1203539-002G	SW-2	W	76.0 @ 25.0°C	1	
1203539-003G	SW-3	W	178 @ 25.0°C	1	
1203539-004G	SW-4	W	76.5 @ 25.0°C	1	
1203539-005G	SW-5	W	34.8 @ 25.0°C	1	
1203539-006G	SW-6	W	42.6 @ 25.0°C	1	
1203539-007G	S PARR SW-11	W	159 @ 25.0°C	1	
1203539-008G	N PARR SW-12	W	64.4 @ 25.0°C	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit

W

10 µmhos/cm @ 25°C

S

NA

DF = Dilution Factor



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT Annual March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Extracted: 03/20/12-03/21/12
	Client P.O.:	Date Analyzed: 03/20/12-03/21/12

Total Organic Carbon (TOC) reported as NPOC*

Analytical Method: E415.3

Work Order: 1203539

Lab ID	Client ID	Matrix	TOC	DF	Comments
1203539-001B	SW-1	W	1.7	1	
1203539-002B	SW-2	W	1.5	1	
1203539-003B	SW-3	W	1.6	1	
1203539-004B	SW-4	W	1.6	1	
1203539-005B	SW-5	W	2.2	1	
1203539-006B	SW-6	W	1.8	1	
1203539-007B	S PARR SW-11	W	2.5	1	
1203539-008B	N PARR SW-12	W	4.5	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit

W

0.3 mg/L

S

NA

* water samples are reported in mg/L. Settleable solids and floatable matter are excluded from analysis per E415.3. TOC is reported as NPOC.

TOC = Total Organic Carbon; NPOC = Non-Purgeable Organic Carbon; DOC = Dissolved Organic Carbon;
POC = Purgeable Organic Carbon; IC = Inorganic Carbon; TC = Total Carbon.

DF = Dilution Factor



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT Annual March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Extracted: 03/15/12
	Client P.O.: #TL22474	Date Analyzed: 03/16/12-03/23/12

Total Extractable Petroleum Hydrocarbons*

Extraction method: SW3510C

Analytical methods: SW8015B

Work Order: 1203539

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
1203539-001D	SW-1	W	100	340	1	100	e7,e2
1203539-002D	SW-2	W	58	ND	1	91	e2
1203539-003D	SW-3	W	ND	ND	1	98	
1203539-004D	SW-4	W	ND	ND	1	97	
1203539-005D	SW-5	W	ND	370	1	98	e7
1203539-006D	SW-6	W	ND	ND	1	98	
1203539-007D	S PARR SW-11	W	150	460	1	96	e7,e2
1203539-008D	N PARR SW-12	W	ND	ND	1	99	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

* water samples are reported in µg/L, filter samples in µg/filter, µg/wipe in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.


cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

e2) diesel range compounds are significant; no recognizable pattern

e7) oil range compounds are significant

DHS ELAP Certification 1644

 Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT Annual March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Extracted: 03/19/12
	Client P.O.:	Date Analyzed: 03/19/12

Total Suspended Solids*

Analytical Method: SM2540D

Work Order: 1203539

Lab ID	Client ID	Matrix	Total Suspended Solids	DF	Comments
1203539-001H	SW-1	W	23.4	2	
1203539-002H	SW-2	W	191	10	
1203539-003H	SW-3	W	153	10	
1203539-004H	SW-4	W	29.0	2	
1203539-005H	SW-5	W	26.0	2	
1203539-006H	SW-6	W	7.00	1	
1203539-007H	S PARR SW-11	W	165	10	
1203539-008H	N PARR SW-12	W	11.4	2	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit

W

1.0 mg/L

S

NA

* water samples reported in mg/L.

DF = Dilution Factor



QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65778

WorkOrder: 1203539

EPA Method: SW8015B		Extraction: SW3510C				Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	122	N/A	N/A	70 - 130
%SS:	N/A	625	N/A	N/A	N/A	88	N/A	N/A	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 65778 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203539-001D	03/14/12 7:40 AM	03/15/12	03/20/12 2:13 PM	1203539-002D	03/14/12 7:10 AM	03/15/12	03/21/12 10:09 PM
1203539-003D	03/14/12 2:10 PM	03/15/12	03/23/12 2:32 PM	1203539-004D	03/14/12 1:05 PM	03/15/12	03/16/12 8:25 PM
1203539-005D	03/14/12 1:15 PM	03/15/12	03/16/12 9:32 PM	1203539-006D	03/14/12 1:25 PM	03/15/12	03/16/12 7:18 PM
1203539-007D	03/14/12 2:45 PM	03/15/12	03/20/12 3:04 PM	1203539-008D	03/14/12 3:10 PM	03/15/12	03/16/12 9:17 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E1664A

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65799

WorkOrder: 1203539

EPA Method: E1664A		Extraction: E1664A				Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
HEMSGT	N/A	10.42	N/A	N/A	N/A	92	N/A	N/A	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 65799 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203539-001E	03/14/12 7:40 AM	03/21/12	03/22/12 2:55 PM	1203539-002E	03/14/12 7:10 AM	03/21/12	03/22/12 3:00 PM
1203539-003E	03/14/12 2:10 PM	03/21/12	03/22/12 3:05 PM	1203539-004E	03/14/12 1:05 PM	03/21/12	03/22/12 3:10 PM
1203539-005E	03/14/12 1:15 PM	03/21/12	03/22/12 3:15 PM	1203539-006E	03/14/12 1:25 PM	03/21/12	03/22/12 3:20 PM
1203539-007E	03/14/12 2:45 PM	03/21/12	03/22/12 3:25 PM	1203539-008E	03/14/12 3:10 PM	03/21/12	03/22/12 3:30 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate therefore unable to comply with method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65823

WorkOrder: 1203539

EPA Method: E200.8		Extraction: E200.8				Spiked Sample ID: 1203314-011A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Copper	120	50	91.2	87.2	1.22	95.4	70 - 130	20	70 - 130
Lead	ND	50	98.2	98.5	0.324	98.8	70 - 130	20	70 - 130
Vanadium	1.7	50	95.2	95.7	0.425	97.3	70 - 130	20	70 - 130
Zinc	7.4	500	91	90	1.11	95	70 - 130	20	70 - 130
%SS:	100	750	101	102	0.527	102	70 - 130	20	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 65823 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203539-001I	03/14/12 7:40 AM	03/15/12	03/17/12 7:00 AM	1203539-002I	03/14/12 7:10 AM	03/15/12	03/19/12 6:38 PM
1203539-003I	03/14/12 2:10 PM	03/15/12	03/17/12 7:12 AM	1203539-004I	03/14/12 1:05 PM	03/15/12	03/17/12 7:18 AM
1203539-005I	03/14/12 1:15 PM	03/15/12	03/17/12 7:25 AM	1203539-006I	03/14/12 1:25 PM	03/15/12	03/17/12 7:31 AM
1203539-007I	03/14/12 2:45 PM	03/15/12	03/17/12 7:37 AM	1203539-008I	03/14/12 3:10 PM	03/15/12	03/17/12 7:43 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E410.4

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 66025

WorkOrder: 1203539

EPA Method: SM5220D		Extraction: SM5220D					Spiked Sample ID: 1203539-001C		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
COD	22	400	97.2	96.6	0.590	100	80 - 120	20	90 - 110
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 66025 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203539-001C	03/14/12 7:40 AM	03/22/12	03/22/12 1:32 PM	1203539-002C	03/14/12 7:10 AM	03/22/12	03/22/12 1:38 PM
1203539-003C	03/14/12 2:10 PM	03/22/12	03/22/12 1:44 PM	1203539-004C	03/14/12 1:05 PM	03/22/12	03/22/12 1:50 PM
1203539-005C	03/14/12 1:15 PM	03/22/12	03/22/12 1:56 PM	1203539-006C	03/14/12 1:25 PM	03/22/12	03/22/12 2:02 PM
1203539-007C	03/14/12 2:45 PM	03/22/12	03/22/12 2:08 PM	1203539-008C	03/14/12 3:10 PM	03/22/12	03/22/12 2:14 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8081A/8082

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65723

WorkOrder: 1203539

EPA Method: SW8081A/8082		Extraction: SW3510C					Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Aldrin	N/A	0.50	N/A	N/A	N/A	107	N/A	N/A	70 - 130
g-BHC	N/A	0.50	N/A	N/A	N/A	94.2	N/A	N/A	70 - 130
p,p-DDT	N/A	1.25	N/A	N/A	N/A	84.7	N/A	N/A	70 - 130
Dieldrin	N/A	1.25	N/A	N/A	N/A	120	N/A	N/A	70 - 130
Endrin	N/A	1.25	N/A	N/A	N/A	100	N/A	N/A	70 - 130
Heptachlor	N/A	0.50	N/A	N/A	N/A	89.3	N/A	N/A	70 - 130
%SS:	N/A	1.25	N/A	N/A	N/A	112	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 65723 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203539-001F	03/14/12 7:40 AM	03/15/12	03/25/12 6:31 AM	1203539-002F	03/14/12 7:10 AM	03/15/12	03/25/12 7:27 AM
1203539-003F	03/14/12 2:10 PM	03/15/12	03/25/12 8:24 AM	1203539-004F	03/14/12 1:05 PM	03/15/12	03/25/12 9:21 AM
1203539-005F	03/14/12 1:15 PM	03/15/12	03/25/12 10:17 AM	1203539-006F	03/14/12 1:25 PM	03/15/12	03/25/12 11:15 AM
1203539-007F	03/14/12 2:45 PM	03/15/12	03/25/12 12:12 PM	1203539-008F	03/14/12 3:10 PM	03/15/12	03/25/12 5:56 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; $RPD = 100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E200.7

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65820

WorkOrder: 1203539

EPA Method: E200.7		Extraction: E200.7					Spiked Sample ID: 1203314-010A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Aluminum	ND	1000	96.1	95.7	0.356	90.7	70 - 130	20	85 - 115
Iron	ND	1000	98	94.9	3.20	100	70 - 130	20	85 - 115
%SS:	100	750	105	101	3.71	99	70 - 130	30	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 65820 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203539-001I	03/14/12 7:40 AM	03/15/12	03/20/12 7:34 PM	1203539-002I	03/14/12 7:10 AM	03/15/12	03/20/12 5:57 PM
1203539-003I	03/14/12 2:10 PM	03/15/12	03/20/12 7:37 PM	1203539-004I	03/14/12 1:05 PM	03/15/12	03/20/12 7:40 PM
1203539-005I	03/14/12 1:15 PM	03/15/12	03/20/12 7:43 PM	1203539-006I	03/14/12 1:25 PM	03/15/12	03/20/12 7:56 PM
1203539-007I	03/14/12 2:45 PM	03/15/12	03/20/12 7:59 PM	1203539-008I	03/14/12 3:10 PM	03/15/12	03/20/12 8:02 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 \cdot (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$; RPD = $100 \cdot (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E415.3

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65946

WorkOrder: 1203539

EPA Method: E415.3		Extraction: E415.3					Spiked Sample ID: 1203539-001B		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TOC	1.7	50	112	113	0.431	114	70 - 130	20	80 - 120
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 65946 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203539-001B	03/14/12 7:40 AM	03/20/12	03/20/12 10:18 PM	1203539-002B	03/14/12 7:10 AM	03/20/12	03/20/12 11:26 PM
1203539-003B	03/14/12 2:10 PM	03/20/12	03/20/12 11:39 PM	1203539-004B	03/14/12 1:05 PM	03/20/12	03/20/12 11:53 PM
1203539-005B	03/14/12 1:15 PM	03/21/12	03/21/12 12:07 AM	1203539-006B	03/14/12 1:25 PM	03/21/12	03/21/12 12:23 AM
1203539-007B	03/14/12 2:45 PM	03/21/12	03/21/12 12:38 AM	1203539-008B	03/14/12 3:10 PM	03/21/12	03/21/12 12:52 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65886

WorkOrder: 1203539

EPA Method: SW8260B		Extraction: SW5030B		Spiked Sample ID: 1203530-001F					
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Benzene	ND	10	98.5	95.7	2.91	104	70 - 130	20	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	102	106	3.53	101	70 - 130	20	70 - 130
Toluene	ND	10	87.5	95.9	9.13	100	70 - 130	20	70 - 130
%SS1:	107	25	110	112	1.95	113	70 - 130	20	70 - 130
%SS2:	110	25	105	105	0	109	70 - 130	20	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 65886 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203539-001A	03/14/12 7:40 AM	03/16/12	03/16/12 5:36 PM	1203539-002A	03/14/12 7:10 AM	03/16/12	03/16/12 6:16 PM
1203539-003A	03/14/12 2:10 PM	03/16/12	03/16/12 10:21 PM	1203539-004A	03/14/12 1:05 PM	03/16/12	03/16/12 11:01 PM
1203539-005A	03/14/12 1:15 PM	03/16/12	03/16/12 11:42 PM	1203539-006A	03/14/12 1:25 PM	03/17/12	03/17/12 12:23 AM
1203539-007A	03/14/12 2:45 PM	03/17/12	03/17/12 1:05 AM	1203539-008A	03/14/12 3:10 PM	03/17/12	03/17/12 1:47 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; $RPD = 100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: SM2510B (Specific Conductivity)

Matrix: W

WorkOrder: 1203539

Method Name: SM2510B			Units: $\mu\text{mhos/cm @ } 25^{\circ}\text{C}$			BatchID: 65858
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1203539-001G	38.8 @ 25.0°C	1	38.8 @ 25.0°C	1	0.103	<2
1203539-002G	76.0 @ 25.0°C	1	76.1 @ 25.0°C	1	0.145	<2
1203539-003G	178 @ 25.0°C	1	179 @ 25.0°C	1	0.617	<2
1203539-004G	76.5 @ 25.0°C	1	76.6 @ 25.0°C	1	0.157	<2
1203539-005G	34.8 @ 25.0°C	1	34.9 @ 25.0°C	1	0.172	<2
1203539-006G	42.6 @ 25.0°C	1	42.7 @ 25.0°C	1	0.352	<2
1203539-007G	159 @ 25.0°C	1	162 @ 25.0°C	1	1.5	<2
1203539-008G	64.4 @ 25.0°C	1	64.5 @ 25.0°C	1	0.171	<2

BATCH 65858 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203539-001G	03/14/12 7:40 AM	03/16/12	03/16/12 2:10 PM	1203539-002G	03/14/12 7:10 AM	03/16/12	03/16/12 2:20 PM
1203539-003G	03/14/12 2:10 PM	03/16/12	03/16/12 2:30 PM	1203539-004G	03/14/12 1:05 PM	03/16/12	03/16/12 2:40 PM
1203539-005G	03/14/12 1:15 PM	03/16/12	03/16/12 2:50 PM	1203539-006G	03/14/12 1:25 PM	03/16/12	03/16/12 3:00 PM
1203539-007G	03/14/12 2:45 PM	03/16/12	03/16/12 3:10 PM	1203539-008G	03/14/12 3:10 PM	03/16/12	03/16/12 3:20 PM

Dup = Duplicate; SD = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

$\text{RPD} = 100 * (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.



QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: SM2540D (TSS)

Matrix: W

WorkOrder: 1203539

Method Name: SM2540D			Units: mg/L		BatchID: 65948	
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1203539-001H	23.4	2	23.4	2	0	<15
1203539-002H	191	10	194	10	1.56	<15
1203539-003H	153	10	156	10	1.94	<15
1203539-004H	29.0	2	30.6	2	5.37	<15
1203539-005H	26.0	2	26.4	2	1.53	<15
1203539-006H	7.00	1	8.00	2	13.3	<15
1203539-007H	165	10	166	10	0.604	<15
1203539-008H	11.4	2	12.8	2	11.6	<15

BATCH 65948 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203539-001H	03/14/12 7:40 AM	03/19/12	03/19/12 7:15 PM	1203539-002H	03/14/12 7:10 AM	03/19/12	03/19/12 7:25 PM
1203539-003H	03/14/12 2:10 PM	03/19/12	03/19/12 7:35 PM	1203539-004H	03/14/12 1:05 PM	03/19/12	03/19/12 7:45 PM
1203539-005H	03/14/12 1:15 PM	03/19/12	03/19/12 7:55 PM	1203539-006H	03/14/12 1:25 PM	03/19/12	03/19/12 8:05 PM
1203539-007H	03/14/12 2:45 PM	03/19/12	03/19/12 8:15 PM	1203539-008H	03/14/12 3:10 PM	03/19/12	03/19/12 6:15 PM

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

$RPD = 100 * (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.

**Certified Laboratory Analytical Reports
Chain of Custody**

**Discharge To Sanitary Sewer
Stormwater Systems Cleanout
Sampling Events**

October 5, 2011
November 29, 2011
January 25, 2012
March 29, 2012
April 5, 2012

**Discharge To Sanitary Sewer
Stormwater Systems Cleanout
Sampling Events**

October 5, 2011



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Analytical Report

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: Discharge 10/05/11; LRT Discharge 031711	Date Sampled: 10/05/11
		Date Received: 10/06/11
	Client Contact: Helen Mawhinney	Date Reported: 10/12/11
	Client P.O.: #TL22292	Date Completed: 10/12/11

WorkOrder: 1110212

October 12, 2011

Dear Helen:

Enclosed within are:

- 1) The results of the 1 analyzed sample from your project: **Discharge 10/05/11; LRT Discharge 031711,**
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.



McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

LEVIN RICH TERMINAL "MUNICIPAL DISCHARGE"

Report To: Helen Mawhinney Bill To: ETS
Company: ENVIRONMENTAL TECHNICAL SERVICES (ETS)
1548 JACOB AVENUE, SAN JOSE, CA 95118
PO No T-1000 E-Mail: hmawhinneyets@aol.com
Tele: (831) 236-9221 Fax: (831) 883-8490
Project #: DISCHARGE 10/05/11 Project Name: LRT DISCHARGE 031711
Project Locate: Levin Richmond Terminal (LRT) 402 Wright Ave, Richmond 94804
Sampler Signature:

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

SAMPLE ID	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments
	Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other			
SW-1 through SW7 LRTC	October 5, 2011	1700			X									X		FIELD COMP
SW-1	10/5/11	1700			X											Lab Comp
SW-2	10/5/11	1700			X											Lab Comp
SW-3	10/5/11	1700			X											Lab Comp
SW-4	10/5/11	1700			X											Lab Comp
SW-5	10/5/11	1700			X											Lab Comp
SW-6	10/5/11	1700			X											Lab Comp
SW-7	10/5/11	1700			X											

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By:	Date:	Time:	Received By:
<i>[Signature]</i>	10/5/11	17:50	<i>[Signature]</i>
Relinquished By:	Date:	Time:	Received By:
<i>[Signature]</i>	10/6/11	17:00	<i>[Signature]</i>
Relinquished By:	Date:	Time:	Received By:
<i>[Signature]</i>	10/6/11	17:15	<i>[Signature]</i>

ICE/GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB
VOAS O&G METALS OTHER
PRESERVATION pH<2

COMMENTS:
* Not received
Composite SW-1 through SW-7 VOAs in lab as one sample for analyses
will appear PO please use on CF invoice

PURCHASE ORDER #
TL 22292

DELUXE CORP 1-800-328-0304 www.deluxereforms.com

Red ink should be used for all entries

PURCHASE ORDER**LEVIN RICHMOND TERMINAL CORP.**402 WRIGHT AVENUE
RICHMOND, CA 94804-3532Show this Purchase Order Number
on all correspondence, invoices,
shipping papers and packages.

TL 22292

TO	McCAMPBELL

DATE	10/05	REQUISITION NO.	901-0120-740
SHIP TO	H. MAWATINNEY / T. LESTER		

REQUISITIONED BY	WHEN SHIP	SHIP VIA	F.O.B. POINT	TERMS
H. Mawatiny				
QTY. ORDERED	QTY. RECEIVED	STOCK NO. / DESCRIPTION	UNIT PRICE	TOTAL
		SW1 → SW7 DISCHARGE PH BUILD		

- Please send _____ copies of your invoice.
- Order is to be entered in accordance with prices, delivery and specifications shown above.
- Notify us immediately if you are unable to ship as specified.

OK TO PAY



 AUTHORIZED BY

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1110212

ClientCode: ETS

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☒ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
510-385-4308 FAX: 510-522-6259

Email: HMawhinneyETS@aol.com
cc:
PO: #TL22292
ProjectNo: Discharge 10/05/11; LRT Discharge
031711

Bill to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
james.jimenez@sbcglobal.net

Requested TAT: 5 days

Date Received: 10/06/2011

Date Printed: 10/07/2011

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1110212-001	LRT0 SW-1 through SW-7	Water	10/5/2011 17:00	<input type="checkbox"/>	B		D	D	C	C						
1110212-001	LRT0 SW-1 through SW-7(Composite)	Water	10/5/2011 17:00	<input type="checkbox"/>		A										

Test Legend:

1	1664A_SG_W	2	624_W	3	ALKIMET_W	4	METALSMS_W	5	SC_W
6	TSS_W	7		8		9		10	
11		12							

Prepared by: Zoraida Cortez

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Environmental Technical Services**

Date and Time Received: **10/6/2011 7:37:17 PM**

Project Name: **Discharge 10/05/11; LRT Discharge 031711**

Checklist completed and reviewed by: **Zoraida Cortez**

WorkOrder N°: **1110212** Matrix: Water

Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 1.8°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: Discharge 10/05/11; LRT Discharge 031711	Date Sampled: 10/05/11
		Date Received: 10/06/11
	Client Contact: Helen Mawhinney	Date Extracted 10/10/11
	Client P.O.: #TL22292	Date Analyzed 10/11/11

Hexane Extractable Material with Silica Gel Clean Up*

Extraction method: E1664A

Analytical methods: E1664A

Work Order: 1110212

[illegible]

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	5.0	mg/L
	S	NA	NA

* water samples and all TCLP & SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L.

DF = dilution factor (may be raised to dilute target analyte or matrix interference).

%SS = Percent Recovery of Surrogate Standard

surrogate diluted out of range or not applicable to this sample.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: Discharge 10/05/11; LRT Discharge 031711	Date Sampled: 10/05/11
		Date Received: 10/06/11
	Client Contact: Helen Mawhinney	Date Extracted: 10/11/11
	Client P.O.: #TL22292	Date Analyzed: 10/11/11

Volatile Organics by P&T and GC/MS *

Extraction Method: E624

Analytical Method: E624

Work Order: 1110212

Lab ID	1110212-001A				Reporting Limit for DF =1	
Client ID	LRTO SW-1 through SW-7(Composite)					
Matrix	W					
DF	1					
					S	W
Compound	Concentration				ug/kg	µg/L
Benzene	ND				NA	0.5
Ethylbenzene	ND				NA	0.5
Toluene	ND				NA	0.5
Xylenes, Total	ND				NA	0.5

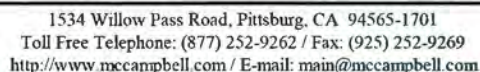
Surrogate Recoveries (%)

%SS1:	118				
%SS2:	109				
%SS3:	119				
Comments					

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.



Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: Discharge 10/05/11; LRT Discharge 031711	Date Sampled: 10/05/11
		Date Received: 10/06/11
	Client Contact: Helen Mawhinney	Date Extracted: 10/06/11
	Client P.O.: #TL22292	Date Analyzed: 10/07/11

Metals*

Extraction method: E200.8

Analytical methods: E200.8

Work Order: 1110212

[illegible]

Reporting Limit for DF=1; ND means not detected at or above the reporting limit	W	TOTAL	0.5	0.5	0.5	0.5	5.0	µg/L
	S	TOTAL	NA	NA	NA	NA	NA	NA

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / WET / DI WET / SPL extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

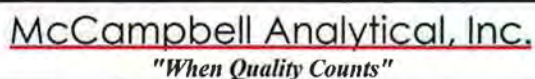
TOTAL = Hot acid digestion of a representative sample aliquot.

TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.

DISS = Dissolved metals by direct analysis of 0.45 μm filtered and acidified sample.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor



1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: Discharge 10/05/11; LRT Discharge 031711	Date Sampled: 10/05/11
		Date Received: 10/06/11
	Client Contact: Helen Mawhinney	Date Extracted: 10/10/11
	Client P.O.: #TL22292	Date Analyzed: 10/10/11

Specific Conductivity*

Analytical Method: SM2510B

Work Order: 1110212

[illegible]

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 μ mhos/cm @ 25°C
	S	NA

DF = Dilution Factor



1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com



QC SUMMARY REPORT FOR E200.7

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 61736

WorkOrder: 1110212

EPA Method: E200.7			Extraction: E200.7						Spiked Sample ID: 1110009-004A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Aluminum	ND	1000	94.8	94	0.782	92.4	92.6	0.195	70 - 130	20	85 - 115	20
Iron	ND	1000	96.9	96.7	0.196	97.2	97.2	0	70 - 130	20	85 - 115	20
%SS:	100	750	98	100	1.98	99	103	4.10	70 - 130	30	70 - 130	30
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE												

BATCH 61736 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110212-001D	10/05/11 5:00 PM	10/06/11	10/08/11 2:21 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E1664A

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 61767

WorkOrder: 1110212

EPA Method: E1664A			Extraction: E1664A						Spiked Sample ID: N/A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)				
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
HEMSGT	N/A	20.83	N/A	N/A	N/A	91.5	90.1	1.61	N/A	N/A	70 - 130	30	
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE													

BATCH 61767 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110212-001B	10/05/11 5:00 PM	10/10/11	10/11/11 3:25 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate therefore unable to comply with method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR E624

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 61766

WorkOrder: 1110212

EPA Method: E624			Extraction: E624						Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Benzene	N/A	10	N/A	N/A	N/A	110	106	4.01	N/A	N/A	70 - 130	30
Chlorobenzene	N/A	10	N/A	N/A	N/A	112	106	4.80	N/A	N/A	70 - 130	30
1,1-Dichloroethene	N/A	10	N/A	N/A	N/A	107	102	4.93	N/A	N/A	70 - 130	30
Methyl-t-butyl ether (MTBE)	N/A	10	N/A	N/A	N/A	110	105	4.46	N/A	N/A	70 - 130	30
Toluene	N/A	10	N/A	N/A	N/A	110	106	4.39	N/A	N/A	70 - 130	30
Trichloroethene	N/A	10	N/A	N/A	N/A	113	108	4.81	N/A	N/A	70 - 130	30
%SS1:	N/A	25	N/A	N/A	N/A	113	112	0.811	N/A	N/A	70 - 130	30
%SS2:	N/A	25	N/A	N/A	N/A	110	110	0	N/A	N/A	70 - 130	30
%SS3:	N/A	2.5	N/A	N/A	N/A	122	121	0.560	N/A	N/A	70 - 130	30
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE												

BATCH 61766 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110212-001A	10/05/11 5:00 PM	10/11/11	10/11/11 3:13 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount\ Spiked)$; $RPD = 100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 61748

WorkOrder: 1110212

EPA Method: E200.8			Extraction: E200.8						Spiked Sample ID: 1110009-005A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Copper	19	10	107	109	0.579	103	102	1.17	70 - 130	20	85 - 115	20
Lead	ND	10	105	104	0.946	101	102	0.591	70 - 130	20	85 - 115	20
Nickel	0.86	10	102	103	0.721	100	102	1.38	70 - 130	20	85 - 115	20
Vanadium	3.0	10	108	106	1.53	101	102	1.38	70 - 130	20	85 - 115	20
Zinc	ND	100	103	103	0	102	101	0.0986	70 - 130	20	85 - 115	20
%SS:	105	750	89	103	14.2	98	97	0.205	70 - 130	20	70 - 130	20
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE												

BATCH 61748 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110212-001D	10/05/11 5:00 PM	10/06/11	10/07/11 8:26 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: **SM2510B (Specific Conductivity)**

Matrix: **W**

WorkOrder: **1110212**

Method Name: SM2510B			Units: $\mu\text{mhos/cm @ } 25^{\circ}\text{C}$			BatchID: 61754
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1110212-001C	594 @ 25.0°C	1	593 @ 25.0°C	1	0.135	<2

BATCH 61754 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110212-001C	10/05/11 5:00 PM	10/10/11	10/10/11 4:50 PM				

Test Method: **SM2540D (TSS)**

Matrix: **W**

WorkOrder: **1110212**

Method Name: SM2540D			Units: mg/L			BatchID: 61761
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1110212-001C	170	5	171	5	0.587	<15

BATCH 61761 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110212-001C	10/05/11 5:00 PM	10/11/11	10/11/11 2:45 PM				


Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

$\text{RPD} = 100 * (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.

DHS ELAP Certification 1644

 QA/QC Officer

**Discharge To Sanitary Sewer
Stormwater Systems Cleanout
Sampling Events**

November 29, 2011



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mcccampbell.com> / E-mail: main@mcccampbell.com

Analytical Report

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRTO Discharge Nov 2011	Date Sampled: 11/29/11
		Date Received: 11/30/11
	Client Contact: Helen Mawhinney	Date Reported: 12/05/11
	Client P.O.: #TL22336	Date Completed: 12/05/11

WorkOrder: 1111866

December 06, 2011

Dear Helen:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **LRTO Discharge Nov 2011**,
- 2) QC data for the above sample, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) ☐
☐ Check if sample is effluent and "I" flag is required

Report To: Helen Mawhinney Bill To: ETS

Company: Environmental Technical Services (ETS)

1548 Jacob Avenue, San Jose, CA 95118

E-Mail: hmawhinneyets@aol.com

Tele: (831) 236-9221

Fax: ()

Project #: LRTO DISCHARGE NOV 2011 Project Name: LRT DISCH NOV 2011

Project Location: Levin Richmond Terminal 402 Wright Avenue, Richmond, CA

Sampler Signature:[illegible]

****MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely. All samples except BTEX were composted in the field. BTEX was composted in the laboratory.**

Relinquished By:

Date:

Time:

Received By:

ICE/t° 57.2

GOOD CONDITION ✓

HEAD SPACE ABSENT

DECHLORINATED IN LAB _____
APPROPRIATE CONTAINERS

COMMENTS:

*Metals minimum reporting limits: CU <0.6 mg/L; pB <0.3 mg/L
Ni <0.5 mg/L; Zn <1.0 mg/L)

**PLEASE ANALYZE ALL SAMPLE ACCORDING TO
40 CFR 136 AS REQUIRED BY THE RWOCB**

Relinquished By:

Date:

Time:

Received By:

	VOAS	O&G	METALS	OTHER
PRESERVATION	✓		pH<2 ✓	

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1111866

ClientCode: ETS

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☒ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
510-385-4308 FAX: 510-522-6259

Email: HMawhinneyETS@aol.com; james.jimenez
cc:
PO:
ProjectNo: LRTO Discharge Nov 2011

Bill to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
james.jimenez@sbcglobal.net

Requested TAT:

5 days

Date Received: 11/30/2011

Date Printed: 11/30/2011

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1111866-001	LRTO SW-1 Through SW-7	Water	11/29/2011 13:00	<input type="checkbox"/>	D		E	F	B	B	C					
1111866-001	LRTO SW-1 Through SW-7 (Composite)	Water	11/29/2011 13:00	<input type="checkbox"/>		A										

Test Legend:

1	1664A_SG_W	2	602_W	3	BOD_W	4	METALSMS_W	5	PH_W
6	SC-120_1_W	7	TSS_W	8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Environmental Technical Services**

Date and Time Received: **11/30/2011 10:08:43 AM**

Project Name: **LRTD Discharge Nov 2011**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **1111866**

Matrix: Water

Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 5.4°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Comments:



1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRTO Discharge Nov 2011	Date Sampled: 11/29/11
	Client Contact: Helen Mawhinney	Date Received: 11/30/11
	Client P.O.: #TL22336	Date Extracted: 12/01/11
		Date Analyzed: 12/01/11

Aromatic VOCs by P&T and GC-PID (602 Target List)*

Extraction Method: E602

Analytical Method: E602

Work Order: 1111866

Lab ID	1111866-001A				Reporting Limit for DF =1	
Client ID	LRTO SW-1 Through SW-7 (Composite)					
Matrix	W					
DF	1					
					S	W
Compound	Concentration				ug/kg	µg/L
Benzene	ND				NA	0.5
Toluene	ND				NA	0.5
Ethylbenzene	ND				NA	0.5
Xylenes, Total	ND				NA	0.5

Surrogate Recoveries (%)

%SS:	100				
Comments					

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRTO Discharge Nov 2011	Date Sampled: 11/29/11
		Date Received: 11/30/11
	Client Contact: Helen Mawhinney	Date Extracted: 11/30/11-12/05/11
	Client P.O.: #TL22336	Date Analyzed: 12/05/11

Biochemical Oxygen Demand (BOD)*

Analytical Method: SM5210B

Work Order: 1111866

Lab ID	Client ID	Matrix	BOD	DF	Comments
1111866-001E	LRTO SW-1 Through SW-7	W	ND	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	4.0 mg/L	
	S	NA	

* water samples are reported in mg/L.



1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

DF = Dilution Factor



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRTO Discharge Nov 2011	Date Sampled: 11/29/11
		Date Received: 11/30/11
	Client Contact: Helen Mawhinney	Date Extracted: 11/30/11
	Client P.O.: #TL22336	Date Analyzed: 11/30/11

pH*

Analytical Method: SM4500H+B

Work Order: 1111866

Lab ID	Client ID	Matrix	pH	DF	Comments
1111866-001B	LRTO SW-1 Through SW-7	W	7.28 @ 21.7°C	1	

Method Accuracy and Reporting Units	W	±0.05, pH units @ °C	
	S	NA	

* According the formal method, this is "field test" with a 15 minute Hold Time. However, as this is unrealistically short for commercial environmental analysis, MAI has designated a 24 hour hold time for aqueous samples.

DF = Dilution Factor



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRTO Discharge Nov 2011	Date Sampled: 11/29/11
	Client Contact: Helen Mawhinney	Date Received: 11/30/11
	Client P.O.: #TL22336	Date Extracted: 11/30/11
		Date Analyzed: 12/05/11

Specific Conductivity*

Analytical Method: E120.1

Work Order: 1111866

Lab ID	Client ID	Matrix	Specific Conductivity	DF	Comments
1111866-001B	LRTO SW-1 Through SW-7	W	3950 @ 25.0°C	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 µmhos/cm @ 25°C	
	S	NA	

DF = Dilution Factor



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRTO Discharge Nov 2011	Date Sampled: 11/29/11
		Date Received: 11/30/11
	Client Contact: Helen Mawhinney	Date Extracted: 11/30/11
	Client P.O.: #TL22336	Date Analyzed: 11/30/11

Total Suspended Solids*

Analytical Method: SM2540D

Work Order: 1111866

Lab ID	Client ID	Matrix	Total Suspended Solids	DF	Comments
1111866-001C	LRTO SW-1 Through SW-7	W	47.6	2	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	1.0 mg/L	
	S	NA	

* water samples reported in mg/L.

DF = Dilution Factor



QC SUMMARY REPORT FOR E1664A

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 63031

WorkOrder: 1111866

EPA Method: E1664A

Extraction: E1664A

Spiked Sample ID: N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
HEM	N/A	20.83	N/A	N/A	N/A	97.7	94.4	3.42	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 63031 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1111866-001D	11/29/11 1:00 PM	12/01/11	12/02/11 3:15 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate therefore unable to comply with method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR EPA 602

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 63061

WorkOrder: 1111866

EPA Method: E602

Extraction: E602

Spiked Sample ID: 1111880-055A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
MTBE	ND	10	102	110	7.47	104	101	3.07	70 - 130	20	70 - 130	20
Benzene	ND	10	122	123	1.00	121	118	2.61	70 - 130	20	70 - 130	20
Toluene	ND	10	105	108	2.30	106	104	2.00	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	107	109	1.19	106	107	0.194	70 - 130	20	70 - 130	20
%SS:	103	10	103	106	2.62	106	104	1.52	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 63061 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1111866-001A	11/29/11 1:00 PM	12/01/11	12/01/11 4:59 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; $RPD = 100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SM5210B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 63078

WorkOrder: 1111866

EPA Method: SM5210B

Extraction: SM5210B

Spiked Sample ID: N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
BOD	N/A	198	N/A	N/A	N/A	98.7	100	1.27	N/A	N/A	80 - 120	16

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 63078 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1111866-001E	11/29/11 1:00 PM	11/30/11	12/05/11 2:38 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount\ Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 63019

WorkOrder: 1111866

EPA Method: E200.8

Extraction: E200.8

Spiked Sample ID: 1111683-003A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Copper	53	10	NR	NR	NR	98.9	107	7.77	70 - 130	20	85 - 115	20
Lead	ND	10	102	102	0	94.5	102	8.02	70 - 130	20	85 - 115	20
Nickel	0.61	10	101	102	1.02	98.2	106	7.81	70 - 130	20	85 - 115	20
Zinc	ND	100	102	104	1.77	97.5	106	8.42	70 - 130	20	85 - 115	20
%SS:	109	750	108	113	4.69	108	110	1.81	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 63019 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1111866-001F	11/29/11 1:00 PM	11/30/11	12/01/11 10:51 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: SM4500H+B (pH)

Matrix: W

WorkOrder: 1111866

Method Name: SM4500H+B			Units: \pm , pH units @ °C			BatchID: 63048
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	Precision	Acceptance Criteria
1111866-001B	7.28 @ 21.7°C	1	7.30 @ 21.9°C	1	0.02	0.05

BATCH 63048 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1111866-001B	11/29/11 1:00 PM	11/30/11	11/30/11 2:11 PM				

Test Method: SM2540D (TSS)

Matrix: W

WorkOrder: 1111866

Method Name: SM2540D			Units: mg/L			BatchID: 63077
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1111866-001C	47.6	2	47.2	2	0.844	<15

BATCH 63077 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1111866-001C	11/29/11 1:00 PM	11/30/11	11/30/11 6:05 PM				

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

$RPD = 100 * (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: E120.1 (Specific Conductivity)

Matrix: W

WorkOrder: 1111866

Method Name: E120.1			Units: µmhos/cm @ 25°C			BatchID: 63050
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1111866-001B	3950 @ 25.0°C	1	3940 @ 25.0°C	1	0.101	<2

BATCH 63050 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1111866-001B	11/29/11 1:00 PM	11/30/11	12/05/11 2:20 PM				

Dup = Duplicate; SD = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

$RPD = 100 * (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.

**Discharge To Sanitary Sewer
Stormwater Systems Cleanout
Sampling Events**

March 29, 2012



Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

**Laboratory Job Number 235229
ANALYTICAL REPORT**

Environmental Tech. Services
1548 Jacob Avenue
San Jose, CA 95118

Project : STANDARD
Location : LRTO Discharge
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
LRTO SW 2	235229-001
LRTO SW 4	235229-002
LRTO SW 5	235229-003
LRTO SW 6	235229-004
LRTO SW 7	235229-005
LRTO SW (2,4,5,6,7)	235229-006

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Troy Babin
Project Manager

Date: 04/02/2012

NELAP # 01107CA

CASE NARRATIVE

Laboratory number: 235229
Client: Environmental Tech. Services
Location: LRTO Discharge
Request Date: 03/29/12
Samples Received: 03/29/12

This data package contains sample and QC results for one five-point water composite, requested for the above referenced project on 03/29/12. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8021B):

No analytical problems were encountered.

Metals (EPA 6010B):

No analytical problems were encountered.

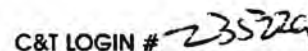
Total Oil & Grease (HEM) (EPA 1664A):

Matrix spikes were not performed for this analysis due to insufficient sample volume. No analytical problems were encountered.

pH (EPA 9040C):

No analytical problems were encountered.

Page 1 of 1



Phone (510) 486-0900
Fax (510) 486-0532

Turnaround Time: ☐ RUSH 11:30 AM ☐ Standard Email: hmanwhimmer@cs.cgo

Chain of Custody

ANALYTICAL REQUEST

Composite

~~TOTAL OIL GREASE~~

~~PH~~

~~Copper~~

~~Lead~~

~~Nickel~~

~~Zinc~~

~~BTEX~~

Composite, and so

incl sample (VOMs)

All other samples

analyzed in lot

Notes:
EPA Method per
40 CFR 136

☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:

RELINQUISHED BY:	
<i>[Signature]</i>	DATE: 3-29-12 TIME: 3:15
<i>[Signature]</i>	DATE: 3-27-12 TIME: 3:42
X <i>[Signature]</i>	DATE: 3/24/12 TIME: 3:18
<i>[Signature]</i>	3-29-12 16:15 LSC SWT

RECEIVED BY

RECEIVED BY:

ETS FRIDGE *Therapy M* DATE: *3-27-12* TIME: *3:15*

X *Grady P* DATE: *3-29-12* TIME: *3:43*

Wm F DATE: *3-27-12* TIME: *15:35*

3/29/12 1525

PURCHASE ORDER

LEVIN RICHMOND TERMINAL CORP.

402 WRIGHT AVENUE
 RICHMOND, CA 94804-3532

Show this Purchase Order Number
 on all correspondence, invoices,
 shipping papers and packages.

72 22480

TO

DATE 03/29/12	REQUISITION NO. 900-0120-740
SHIP TO H. MACWHIRNEY	

REQUISITIONED BY	WHEN SHIP	SHIP VIA	F.O.B. POINT	TERMS			
H. MACWHIRNEY							
QTY. ORDERED	QTY. RECEIVED	STOCK NO. / DESCRIPTION		UNIT PRICE		TOTAL	
1		CITY DISCHARGE SAMPLING					

- Please send copies of your invoice.
- Order is to be entered in accordance with prices, delivery and specifications shown above.
- Notify us immediately if you are unable to ship as specified.

OK TO PAY

RA. L. [Signature]
 AUTHORIZED BY

COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 235229 Date Received 3/29/12 Number of coolers 1
 Client ETS Project LRO Discharge 3/29/12
 Date Opened 3/29/12 By (print) C. Morrow (sign) [Signature]
 Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) _____ YES NO
 Shipping info _____
- 2A. Were custody seals present? ☐ YES (circle) on cooler on samples ☒ NO
 How many _____ Name _____ Date _____
- 2B. Were custody seals intact upon arrival? _____ YES NO N/A
3. Were custody papers dry and intact when received? _____ YES NO
4. Were custody papers filled out properly (ink, signed, etc)? _____ YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) _____ YES NO
6. Indicate the packing in cooler: (if other, describe) _____
☐ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels
7. Temperature documentation: * Notify PM if temperature exceeds 6°C
 Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C) _____
☐ Samples Received on ice & cold without a temperature blank; temp. taken with IR gun
☒ Samples received on ice directly from the field. Cooling process had begun
8. Were Method 5035 sampling containers present? _____ YES NO
 If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? _____ YES NO
10. Are there any missing / extra samples? _____ YES NO
11. Are samples in the appropriate containers for indicated tests? _____ YES NO
12. Are sample labels present, in good condition and complete? _____ YES NO
13. Do the sample labels agree with custody papers? _____ YES NO
14. Was sufficient amount of sample sent for tests requested? _____ YES NO
15. Are the samples appropriately preserved? _____ YES NO N/A
16. Did you check preservatives for all bottles for each sample? _____ YES NO N/A
17. Did you document your preservative check? _____ YES NO N/A
18. Did you change the hold time in LIMS for unpreserved VOAs? _____ YES NO N/A
19. Did you change the hold time in LIMS for preserved terracores? _____ YES NO N/A
20. Are bubbles > 6mm absent in VOA samples? _____ YES NO N/A
21. Was the client contacted concerning this sample delivery? _____ YES NO
 If YES, Who was called? _____ By _____ Date: _____

COMMENTS

Rev 10, 11/11

Curtis & Tompkins Sample Preservation for 235229

Sample	pH: <2	>12	Other
-006a	<input type="checkbox"/>	<input type="checkbox"/>	_____
b	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
c	<input type="checkbox"/>	<input type="checkbox"/>	_____

Analyst: CHY
Date: 3/24/12
Page 1 of 1

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	235229	Location:	LRTO Discharge
Client:	Environmental Tech. Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8021B
Field ID:	LRTO SW (2,4,5,6,7)	Batch#:	185098
Matrix:	Water	Sampled:	03/29/12
Units:	ug/L	Received:	03/29/12
Diln Fac:	1.000	Analyzed:	03/30/12

Type: SAMPLE Lab ID: 235229-006

Analyte	Result	RL
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	96	70-125

Type: BLANK Lab ID: QC633878

Analyte	Result	RL
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	98	70-125

Batch QC Report

Benzene, Toluene, Ethylbenzene, Xylenes			
Lab #:	235229	Location:	LRTD Discharge
Client:	Environmental Tech. Services	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	185098
Units:	ug/L	Analyzed:	03/30/12
Diln Fac:	1.000		

Type: BS Lab ID: QC633875

Analyte	Spiked	Result	%REC	Limits
Benzene	10.00	10.06	101	78-120
Toluene	10.00	10.51	105	80-120
Ethylbenzene	10.00	9.658	97	80-120
m,p-Xylenes	10.00	9.897	99	80-120
o-Xylene	10.00	9.921	99	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	95	70-125

Type: BSD Lab ID: QC633876

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	10.00	10.25	103	78-120	2	31
Toluene	10.00	10.57	106	80-120	1	20
Ethylbenzene	10.00	9.983	100	80-120	3	20
m,p-Xylenes	10.00	10.03	100	80-120	1	20
o-Xylene	10.00	9.967	100	80-120	0	20

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	99	70-125

RPD= Relative Percent Difference

Metals Analytical Report

Lab #:	235229	Location:	LRT0 Discharge
Client:	Environmental Tech. Services	Prep:	EPA 3010A
Project#:	STANDARD	Analysis:	EPA 6010B
Field ID:	LRT0 SW (2,4,5,6,7)	Sampled:	03/29/12
Matrix:	Water	Received:	03/29/12
Units:	ug/L	Prepared:	03/30/12
Diln Fac:	1.000	Analyzed:	04/02/12
Batch#:	185104		

Type: SAMPLE Lab ID: 235229-006

Analyte	Result	RL
Copper	8.7	5.0
Lead	9.7	5.0
Nickel	ND	5.0
Zinc	60	20

Type: BLANK Lab ID: QC633899

Analyte	Result	RL
Copper	ND	5.0
Lead	ND	5.0
Nickel	ND	5.0
Zinc	ND	20

Batch QC Report

Metals Analytical Report

Lab #:	235229	Location:	LRT0 Discharge
Client:	Environmental Tech. Services	Prep:	EPA 3010A
Project#:	STANDARD	Analysis:	EPA 6010B
Matrix:	Water	Batch#:	185104
Units:	ug/L	Prepared:	03/30/12
Diln Fac:	1.000	Analyzed:	04/02/12

Type: BS Lab ID: QC633900

Analyte	Spiked	Result	%REC	Limits
Copper	250.0	233.3	93	78-120
Lead	100.0	95.96	96	78-120
Nickel	500.0	484.0	97	80-120
Zinc	500.0	489.6	98	80-120

Type: BSD Lab ID: QC633901

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Copper	250.0	240.4	96	78-120	3	20
Lead	100.0	95.64	96	78-120	0	20
Nickel	500.0	498.8	100	80-120	3	20
Zinc	500.0	504.8	101	80-120	3	20

RPD= Relative Percent Difference

Batch QC Report

Metals Analytical Report			
Lab #:	235229	Location:	LRT0 Discharge
Client:	Environmental Tech. Services	Prep:	EPA 3010A
Project#:	STANDARD	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	185104
MSS Lab ID:	235213-001	Sampled:	03/28/12
Matrix:	Water	Received:	03/28/12
Units:	ug/L	Prepared:	03/30/12
Diln Fac:	1.000	Analyzed:	04/02/12

Type: MS Lab ID: QC633902

Analyte	MSS Result	Spiked	Result	%REC	Limits
Copper	50.49	250.0	271.0	88	70-122
Lead	16.55	100.0	104.4	88	62-120
Nickel	5.106	500.0	467.7	93	71-120
Zinc	523.9	500.0	938.4	83	75-124

Type: MSD Lab ID: QC633903

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Copper	250.0	276.1	90	70-122	2	25
Lead	100.0	107.7	91	62-120	3	29
Nickel	500.0	473.7	94	71-120	1	21
Zinc	500.0	946.8	85	75-124	1	25

RPD= Relative Percent Difference

Total Oil & Grease (HEM)			
Lab #:	235229	Location:	LRTD Discharge
Client:	Environmental Tech. Services	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 1664A
Analyte:	Oil & Grease (HEM)	Batch#:	185124
Field ID:	LRTD SW (2,4,5,6,7)	Sampled:	03/29/12
Matrix:	Water	Received:	03/29/12
Units:	mg/L	Analyzed:	04/02/12

Type	Lab ID	Result	RL	Diln Fac
SAMPLE	235229-006	ND	4.70	0.9400
BLANK	QC633965	ND	5.00	1.000

Batch QC Report

Total Oil & Grease (HEM)			
Lab #:	235229	Location:	LRTD Discharge
Client:	Environmental Tech. Services	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 1664A
Analyte:	Oil & Grease (HEM)	Batch#:	185124
Field ID:	ZZZZZZZZZZ	Sampled:	03/28/12
MSS Lab ID:	235209-001	Received:	03/28/12
Matrix:	Water	Analyzed:	04/02/12
Units:	mg/L		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln	Fac
LCS	QC633966		40.00	35.60	89	78-114			1.000	
MS	QC633967	<4.700	38.40	34.52	90	25-139			0.9600	
MSD	QC633968		38.60	32.92	85	25-139	5	59	0.9700	

RPD= Relative Percent Difference

pH			
Lab #:	235229	Location:	LRTO Discharge
Client:	Environmental Tech. Services	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 9040C
Analyte:	pH	Diln Fac:	1.000
Field ID:	LRTO SW (2,4,5,6,7)	Batch#:	185056
Lab ID:	235229-006	Sampled:	03/29/12 15:20
Matrix:	Water	Received:	03/29/12
Units:	SU	Analyzed:	03/29/12 16:15

Result	RL
6.9	1.0

RL= Reporting Limit

Batch QC Report

pH				
Lab #:	235229	Location:	LRT0 Discharge	
Client:	Environmental Tech. Services	Prep:	METHOD	
Project#:	STANDARD	Analysis:	EPA 9040C	
Analyte:	pH	Units:	SU	
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000	
Type:	SDUP	Batch#:	185056	
MSS Lab ID:	235218-004	Sampled:	03/29/12 09:15	
Lab ID:	QC633726	Received:	03/29/12	
Matrix:	Water	Analyzed:	03/29/12 12:30	

MSS Result	Result	RL	RPD	Lim
7.160	7.140	1.000	0	20

**Discharge To Sanitary Sewer
Stormwater Systems Cleanout
Sampling Events**

April 5, 2012



Curtis & Tompkins, Ltd.

Analytical Laboratories, Since 1878



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 235414
ANALYTICAL REPORT

Environmental Tech. Services
1548 Jacob Avenue
San Jose, CA 95118

Project : STANDARD
Location : LRTO Disch 1+3 120405
Level : II

	<u>Sample ID</u>	<u>Lab ID</u>
LRTO	SW-1 + SW-3	235414-001
SW-1		235414-002
SW-3		235414-003
SW-1	SW-3 COMPOSITE	235414-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____

Project Manager

Date: 04/13/2012

NELAP # 01107CA

CASE NARRATIVE

Laboratory number: 235414
Client: Environmental Tech. Services
Location: LRTO Disch 1+3 120405
Request Date: 04/06/12
Samples Received: 04/06/12

This data package contains sample and QC results for two water samples, requested for the above referenced project on 04/06/12. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 624):

No analytical problems were encountered.

Metals (EPA 200.7):

No analytical problems were encountered.

Total Oil & Grease (HEM) (EPA 1664A):

Matrix spikes were not performed for this analysis due to insufficient sample volume. No analytical problems were encountered.

pH (EPA 9040C):

No analytical problems were encountered.

Page 1 of 1



Phone (510) 486-0900
Fax (510) 486-0532

C&T LOGIN # 23540

Project No: LR10 D13ch 1+3 120405 Sampler: Arden Pharmaceuticals

Project Name: LRTD Dsch 1-3 120405 Report To: same

Project P. O. No: **TL 22484** Company: **Environmental Tech Systems**

EDD Format: Report Level ☐ II ☐ III ☐ IV Telephone: 831 236 9221

Turnaround Time: ☐ RUSH ☐ Standard Email: hmc@himmeretseal.com

[illegible]

ANALYTICAL REQUEST	
X	Oil & Grease
X	PH
X	Copper
X	Lead
X	Cadmium
X	Zinc
X	BTEX

Notes:

LRTD SW-1 } Composite
LRTD SW-3 }
Analyze per 40 CFR 136

**SAMPLE
RECEIPT**

☒ Intact
☒ Cold
☒ On Ice
☐ Ambient

REINQUISHED BY:

4-5-12	3:29
DATE:	TIME:
4-6-12	6:59
DATE:	TIME:
4-6-12	17:58
DATE:	TIME:

RECEIVED BY:

ETB FRICSE / 4-5-12
DATE: TIME: 3:30
4/6/12 105
DATE: TIME:
4/6/12 TIME: 1200

COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 235414 Date Received 4/6/12 Number of coolers 1
 Client Env. Tech. Svcs. Project LRTD Dish 1+3 120405

Date Opened 4/6/12 By (print) C. Moran (sign) [Signature]
 Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) _____ YES (NO)
 Shipping info _____

2A. Were custody seals present? ☐ YES (circle) on cooler on samples ☒ NO
 How many _____ Name _____ Date _____

2B. Were custody seals intact upon arrival? _____ YES NO N/A

3. Were custody papers dry and intact when received? _____ YES NO

4. Were custody papers filled out properly (ink, signed, etc)? _____ YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) _____ YES NO

6. Indicate the packing in cooler: (if other, describe) _____

☐ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C) 39

☒ Samples Received on ice & cold without a temperature blank; temp. taken with IR gun

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? _____ YES (NO)

If YES, what time were they transferred to freezer? _____

9. Did all bottles arrive unbroken/unopened? _____ YES NO

10. Are there any missing / extra samples? _____ YES (NO)

11. Are samples in the appropriate containers for indicated tests? _____ YES NO

12. Are sample labels present, in good condition and complete? _____ YES NO

13. Do the sample labels agree with custody papers? _____ YES (NO)

14. Was sufficient amount of sample sent for tests requested? _____ YES NO

15. Are the samples appropriately preserved? _____ YES NO N/A

16. Did you check preservatives for all bottles for each sample? _____ YES NO N/A

17. Did you document your preservative check? _____ YES NO N/A

18. Did you change the hold time in LIMS for unpreserved VOAs? _____ YES NO N/A

19. Did you change the hold time in LIMS for preserved terracores? _____ YES NO N/A

20. Are bubbles > 6mm absent in VOA samples? _____ YES NO N/A

21. Was the client contacted concerning this sample delivery? _____ YES (NO)

If YES, Who was called? _____ By _____ Date: _____

COMMENTS

(3) Col says 6 containers for -001, but only rec'd 3
containers, they were already comp'd. labeled
"LRTD SWH + SW-3"
SW-1 and SW-3 were 3 VOAs each, and these
were logged in as -002 and -003;
-004 is the comp made at CPT for BTXE only

Rev 10, 11/11

Curtis & Tompkins Sample Preservation for 235414

Sample	pH: <2	>12	Other
-001a	<input type="checkbox"/>	<input type="checkbox"/>	_____
b	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
c	<input type="checkbox"/>	<input type="checkbox"/>	_____

Analyst: CPM
Date: 4/6/15
Page 1 of 1

Curtis & Tompkins Laboratories Analytical Report

Lab #:	235414	Location:	LRT0 Disch 1+3 120405
Client:	Environmental Tech. Services	Prep:	EPA 624
Project#:	STANDARD	Analysis:	EPA 624
Field ID:	SW-1 SW-3 COMPOSITE	Batch#:	185400
Matrix:	Water	Sampled:	04/05/12
Units:	ug/L	Received:	04/06/12
Diln Fac:	1.000	Analyzed:	04/10/12

Type: SAMPLE Lab ID: 235414-004

Analyte	Result	RL
Benzene	ND	0.5
Toluene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	0.5	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	93	69-145
Toluene-d8	98	80-120
Bromofluorobenzene	87	80-120

Type: BLANK Lab ID: QC635053

Analyte	Result	RL
Benzene	ND	0.5
Toluene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	92	69-145
Toluene-d8	98	80-120
Bromofluorobenzene	92	80-120

ND= Not Detected
RL= Reporting Limit
Page 1 of 1

12.0

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report			
Lab #:	235414	Location:	LRTO Disch 1+3 120405
Client:	Environmental Tech. Services	Prep:	EPA 624
Project#:	STANDARD	Analysis:	EPA 624
Matrix:	Water	Batch#:	185400
Units:	ug/L	Analyzed:	04/10/12
Diln Fac:	1.000		

Type: BS Lab ID: QC635051

Analyte	Spiked	Result	%REC	Limits
Benzene	25.00	22.28	89	80-121
Toluene	25.00	22.63	91	80-120
Ethylbenzene	25.00	22.41	90	80-120
m,p-Xylenes	50.00	46.09	92	80-121
o-Xylene	25.00	20.87	83	80-121

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	92	69-145
Toluene-d8	96	80-120
Bromofluorobenzene	90	80-120

Type: BSD Lab ID: QC635052

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	25.00	23.49	94	80-121	5	20
Toluene	25.00	23.64	95	80-120	4	20
Ethylbenzene	25.00	23.46	94	80-120	5	20
m,p-Xylenes	50.00	48.33	97	80-121	5	20
o-Xylene	25.00	21.66	87	80-121	4	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	94	69-145
Toluene-d8	97	80-120
Bromofluorobenzene	90	80-120

RPD= Relative Percent Difference

Metals Analytical Report

Lab #:	235414	Location:	LRT0 Disch 1+3 120405
Client:	Environmental Tech. Services	Prep:	EPA 200.7
Project#:	STANDARD	Analysis:	EPA 200.7
Field ID:	LRT0 SW-1 + SW-3	Sampled:	04/05/12
Matrix:	Water	Received:	04/06/12
Units:	ug/L	Prepared:	04/06/12
Diln Fac:	1.000	Analyzed:	04/09/12
Batch#:	185326		

Type: SAMPLE Lab ID: 235414-001

Analyte	Result	RL
Copper	68	5.0
Lead	150	5.0
Nickel	14	5.0
Zinc	990	20

Type: BLANK Lab ID: QC634758

Analyte	Result	RL
Copper	ND	5.0
Lead	ND	5.0
Nickel	ND	5.0
Zinc	ND	20

Batch QC Report

Metals Analytical Report			
Lab #:	235414	Location:	LRT0 Disch 1+3 120405
Client:	Environmental Tech. Services	Prep:	EPA 200.7
Project#:	STANDARD	Analysis:	EPA 200.7
Matrix:	Water	Batch#:	185326
Units:	ug/L	Prepared:	04/06/12
Diln Fac:	1.000	Analyzed:	04/09/12

Type: BS Lab ID: QC634759

Analyte	Spiked	Result	%REC	Limits
Copper	250.0	234.1	94	78-120
Lead	100.0	97.89	98	78-120
Nickel	500.0	504.2	101	80-120
Zinc	500.0	521.6	104	80-120

Type: BSD Lab ID: QC634760

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Copper	250.0	238.1	95	78-120	2	20
Lead	100.0	100.2	100	78-120	2	20
Nickel	500.0	507.7	102	80-120	1	20
Zinc	500.0	526.8	105	80-120	1	20

RPD= Relative Percent Difference

Batch QC Report

Metals Analytical Report			
Lab #:	235414	Location:	LRT0 Disch 1+3 120405
Client:	Environmental Tech. Services	Prep:	EPA 200.7
Project#:	STANDARD	Analysis:	EPA 200.7
Field ID:	LRT0 EQUIP WASH	Batch#:	185326
MSS Lab ID:	235413-001	Sampled:	04/05/12
Matrix:	Water	Received:	04/06/12
Units:	ug/L	Prepared:	04/06/12
Diln Fac:	1.000	Analyzed:	04/09/12

Type: MS Lab ID: QC634761

Analyte	MSS Result	Spiked	Result	%REC	Limits
Copper	7.451	250.0	282.2	110	70-122
Lead	8.682	100.0	115.6	107	62-120
Nickel	6.132	500.0	559.3	111	71-120
Zinc	188.8	500.0	792.7	121	75-124

Type: MSD Lab ID: QC634762

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Copper	250.0	257.1	100	70-122	9	25
Lead	100.0	104.5	96	62-120	10	29
Nickel	500.0	512.1	101	71-120	9	21
Zinc	500.0	725.4	107	75-124	9	25

RPD= Relative Percent Difference

Total Oil & Grease (HEM)			
Lab #:	235414	Location:	LRTO Disch 1+3 120405
Client:	Environmental Tech. Services	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 1664A
Analyte:	Oil & Grease (HEM)	Batch#:	185357
Field ID:	LRTO SW-1 + SW-3	Sampled:	04/05/12
Matrix:	Water	Received:	04/06/12
Units:	mg/L	Analyzed:	04/09/12

Type	Lab ID	Result	RL	Diln Fac
SAMPLE	235414-001	10.7	4.70	0.9400
BLANK	QC634871	ND	5.00	1.000

Batch QC Report

Total Oil & Grease (HEM)			
Lab #:	235414	Location:	LRTO Disch 1+3 120405
Client:	Environmental Tech. Services	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 1664A
Analyte:	Oil & Grease (HEM)	Batch#:	185357
Field ID:	ZZZZZZZZZZ	Sampled:	04/04/12
MSS Lab ID:	235384-001	Received:	04/05/12
Matrix:	Water	Analyzed:	04/09/12
Units:	mg/L		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln	Fac
LCS	QC634872		40.00	39.20	98	78-114			1.000	
MS	QC634873	<5.400	44.00	37.80	86	25-139			1.100	
MSD	QC634874		40.80	35.10	86	25-139	0	59	1.020	

RPD= Relative Percent Difference

pH			
Lab #:	235414	Location:	LRT0 Disch 1+3 120405
Client:	Environmental Tech. Services	Prep:	METHOD
Project#:	STANDARD	Analysis:	EPA 9040C
Analyte:	pH	Diln Fac:	1.000
Field ID:	LRT0 SW-1 + SW-3	Batch#:	185315
Lab ID:	235414-001	Sampled:	04/05/12 12:49
Matrix:	Water	Received:	04/06/12
Units:	SU	Analyzed:	04/06/12 12:07

Result	RL
7.0	1.0

RL= Reporting Limit

Page 1 of 1

3.0

Batch QC Report

pH				
Lab #:	235414	Location:	LRTO Disch 1+3 120405	
Client:	Environmental Tech. Services	Prep:	METHOD	
Project#:	STANDARD	Analysis:	EPA 9040C	
Analyte:	pH	Units:	SU	
Field ID:	LRTO SW-1 + SW-3	Diln Fac:	1.000	
Type:	SDUP	Batch#:	185315	
MSS Lab ID:	235414-001	Sampled:	04/05/12 12:49	
Lab ID:	QC634719	Received:	04/06/12	
Matrix:	Water	Analyzed:	04/06/12 12:07	

MSS Result	Result	RL	RPD	Lim
7.040	7.060	1.000	0	20

**Certified Laboratory Analytical Reports
Chain of Custody
Other Sampling Events**

October 27, 2011

January 25, 2012

March 14, 2012

May 9, 2012

Other Sampling Events

October 27, 2011



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Analytical Report

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: SW-7	Date Sampled: 10/27/11
		Date Received: 10/28/11
	Client Contact: Helen Mawhinney	Date Reported: 11/04/11
	Client P.O.: #TL22318	Date Completed: 11/04/11

WorkOrder: 1110897

November 04, 2011

Dear Helen:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **SW-7**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

McC Campbell Analytical, Inc.

1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1110897**ClientCode: ETS**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☒ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
510-385-4308 FAX: 510-522-6259

Email: HMawhinneyETS@aol.com; james.jimenez
cc:
PO: #TL22318
ProjectNo: SW-7

Bill to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
james.jimenez@sbcglobal.net

Requested TAT:**5 days****Date Received: 10/28/2011****Date Printed: 10/28/2011**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1110897-001	SW-7 Battle	Water	10/27/2011 13:21	<input type="checkbox"/>	A	A	A									
1110897-003	SW-7 Inflow	Water	10/27/2011 13:21	<input type="checkbox"/>		A	A									

Test Legend:

1	8081_W	2	SC_W	3	TDS_W	4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Environmental Technical Services**

Date and Time Received: **10/28/2011 5:55:17 PM**

Project Name: **SW-7**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **1110897**

Matrix: **Water**

Carrier: **Client Drop-In**

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 3.4°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: SW-7	Date Sampled: 10/27/11
		Date Received: 10/28/11
	Client Contact: Helen Mawhinney	Date Extracted: 10/28/11
	Client P.O.: #TL22318	Date Analyzed: 11/01/11

Organochlorine Pesticides by GC-ECD (8080 Basic Target List)*

Extraction Method: SW3510C

Analytical Method: SW8081A

Work Order: 1110897

Lab ID	1110897-001A				Reporting Limit for DF =1	
Client ID	SW-7 Battle					
Matrix	W				S	W
DF	1					
Compound	Concentration				µg/kg	µg/L
Aldrin	ND				NA	0.005
a-BHC	ND				NA	0.01
b-BHC	ND				NA	0.005
d-BHC	ND				NA	0.005
g-BHC	ND				NA	0.02
Chlordane (Technical)	ND				NA	0.1
a-Chlordane	ND				NA	0.05
g-Chlordane	ND				NA	0.05
p,p-DDD	ND				NA	0.01
p,p-DDE	ND				NA	0.01
p,p-DDT	ND				NA	0.01
Dieldrin	0.044				NA	0.01
Endosulfan I	ND				NA	0.02
Endosulfan II	ND				NA	0.02
Endosulfan sulfate	0.068				NA	0.05
Endrin	ND				NA	0.01
Endrin aldehyde	ND				NA	0.05
Endrin ketone	ND				NA	0.05
Heptachlor	ND				NA	0.01
Heptachlor epoxide	ND				NA	0.01
Hexachlorobenzene	ND				NA	0.5
Hexachlorocyclopentadiene	ND				NA	1.0
Methoxychlor	ND				NA	0.1
Toxaphene	ND				NA	0.5

Surrogate Recoveries (%)

%SS:	102			
Comments				

* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor.

surrogate diluted out of range or surrogate coelutes with another peak.

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: SW-7	Date Sampled: 10/27/11
		Date Received: 10/28/11
	Client Contact: Helen Mawhinney	Date Extracted: 11/03/11
	Client P.O.: #TL22318	Date Analyzed: 11/03/11

Specific Conductivity*

Analytical Method: SM2510B

Work Order: 1110897

[illegible]

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 μ mhos/cm @ 25°C	
	S	NA	

DF = Dilution Factor



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: SW-7	Date Sampled: 10/27/11
		Date Received: 10/28/11
	Client Contact: Helen Mawhinney	Date Extracted: 10/31/11
	Client P.O.: #TL22318	Date Analyzed: 11/01/11

Total Dissolved Solids*

Analytical Method: SM2540C

Work Order: 1110897

Lab ID	Client ID	Matrix	Total Dissolved Solids	DF	Comments
1110897-001A	SW-7 Battle	W	6710	10	
1110897-003A	SW-7 Inflow	W	29,700	10	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 mg/L	
	S	NA	

* water samples reported in mg/L.

DF = Dilution Factor



QC SUMMARY REPORT FOR SW8081A

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 62264

WorkOrder: 1110897

EPA Method: SW8081A

Extraction: SW3510C

Spiked Sample ID: N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Aldrin	N/A	0.50	N/A	N/A	N/A	114	115	0.332	N/A	N/A	70 - 130	30
g-BHC	N/A	0.50	N/A	N/A	N/A	96.8	95.6	1.20	N/A	N/A	70 - 130	30
p,p-DDT	N/A	1.25	N/A	N/A	N/A	82.3	81.6	0.842	N/A	N/A	70 - 130	30
Dieldrin	N/A	1.25	N/A	N/A	N/A	116	116	0	N/A	N/A	70 - 130	30
Endrin	N/A	1.25	N/A	N/A	N/A	114	113	0.451	N/A	N/A	70 - 130	30
Heptachlor	N/A	0.50	N/A	N/A	N/A	102	102	0	N/A	N/A	70 - 130	30
%SS:	N/A	1.25	N/A	N/A	N/A	121	122	0.620	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 62264 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110897-001A	10/27/11 1:21 PM	10/28/11	11/01/11 12:14 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.


% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: SM2510B (Specific Conductivity)

Matrix: W

WorkOrder: 1110897

Method Name: SM2510B			Units: $\mu\text{mhos/cm}$ @ 25°C			BatchID: 62218
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1110897-001A	11300 @ 25.0°C	1	11300 @ 25.0°C	1	0.0883	<2
1110897-003A	40200 @ 25.0°C	1	40500 @ 25.0°C	1	0.868	<2

BATCH 62218 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110897-001A	10/27/11 1:21 PM	11/03/11	11/03/11 3:20 PM	1110897-003A	10/27/11 1:21 PM	11/03/11	11/03/11 3:30 PM

Test Method: SM2540C (TDS)

Matrix: W

WorkOrder: 1110897

Method Name: SM2540C			Units: mg/L			BatchID: 62188
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1110897-001A	6710	10	6940	10	3.37	<20
1110897-003A	29,700	10	29,400	10	0.915	<20

BATCH 62188 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110897-001A	10/27/11 1:21 PM	10/31/11	11/01/11 3:10 PM	1110897-003A	10/27/11 1:21 PM	10/31/11	11/01/11 3:20 PM

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

$\text{RPD} = 100 * (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mcccampbell.com> / E-mail: main@mcccampbell.com

Analytical Report

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: SW-7	Date Sampled: 10/27/11
		Date Received: 10/28/11
	Client Contact: Helen Mawhinney	Date Reported: 11/10/11
	Client P.O.: #TL22318	Date Completed: 11/10/11

WorkOrder: 1110897 A

November 10, 2011

Dear Helen:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **SW-7**,
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.



McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) ☐

 Check if sample is effluent and "J" flag is required

Report To: HELEN MAWHINNEY

Bill To: SAME

Company: ENVIRONMENTAL TECHNICAL SERVICES

1548 JACOB AVENUE

PO # TL 22318

SAN JOSE, CA 95118

E-Mail: hmawhinneyets@aol.com

Tele: (831) 236-9221

Fax: ()

Project #:

Project Name:

Project Location: 402 WRIGHT AVENUE, RICHMOND, CA 94804

Sampler Signature:

PO# TL

[illegible]

****MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.**

Relinquished By: <i>[Signature]</i>	Date: <i>3-11-13</i>	Time: <i>132F</i>	Received By: <i>ETS Fridge</i>	ICE# <i>346</i> ✓ GOOD CONDITION _____ HEAD SPACE ABSENT _____ DECHLORINATED IN LAB _____ APPROPRIATE CONTAINERS ✓ _____ PRESERVED IN LAB _____ VOAS O&G METALS OTHER PRESERVATION pH<2	COMMENTS:
Relinquished By: _____	Date: _____	Time: _____	Received By: _____		
Relinquished By: <i>[Signature]</i>	Date: <i>3-11-13</i>	Time: <i>1530</i>	Received By: <i>[Signature]</i>		

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1110897 **A** ClientCode: ETS

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☒ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
510-385-4308 FAX: 510-522-6259

Email: HMawhinneyETS@aol.com; james.jimenez
cc:
PO: #TL22318
ProjectNo: SW-7

Bill to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
james.jimenez@sbcglobal.net

Requested TAT:

5 days

Date Received: 10/28/2011

Date Add-On: 11/09/2011

Date Printed: 11/09/2011

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1110897-003	SW-7 Inflow	Water	10/27/2011 13:21	<input type="checkbox"/>	A											

Test Legend:

1	8081_W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments: 8081 added on 003 11/9/11 24hr.

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

**McC Campbell Analytical, Inc.***"When Quality Counts"*1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services

Client Project ID: SW-7

Date Sampled: 10/27/11

1548 Jacob Avenue

Date Received: 10/28/11

Client Contact: Helen Mawhinney

Date Extracted: 11/09/11

San Jose, CA 95118

Client P.O.: #TL22318

Date Analyzed: 11/10/11

Organochlorine Pesticides by GC-ECD (8080 Basic Target List)*

Extraction Method: SW3510C

Analytical Method: SW8081A

Work Order: 1110897

Lab ID	1110897-003A				Reporting Limit for DF =1	
Client ID	SW-7 Inflow					
Matrix	W				S	W
DF	1					
Compound	Concentration				µg/kg	µg/L
Aldrin	ND				NA	0.005
a-BHC	ND				NA	0.01
b-BHC	ND				NA	0.005
d-BHC	ND				NA	0.005
g-BHC	ND				NA	0.02
Chlordane (Technical)	ND				NA	0.1
a-Chlordane	ND				NA	0.05
g-Chlordane	ND				NA	0.05
p,p-DDD	ND				NA	0.01
p,p-DDE	ND				NA	0.01
p,p-DDT	0.085				NA	0.01
Dieldrin	0.15				NA	0.01
Endosulfan I	ND				NA	0.02
Endosulfan II	ND				NA	0.02
Endosulfan sulfate	ND				NA	0.05
Endrin	0.093				NA	0.01
Endrin aldehyde	ND				NA	0.05
Endrin ketone	ND				NA	0.05
Heptachlor	ND				NA	0.01
Heptachlor epoxide	ND				NA	0.01
Hexachlorobenzene	ND				NA	0.5
Hexachlorocyclopentadiene	ND				NA	1.0
Methoxychlor	ND				NA	0.1
Toxaphene	ND				NA	0.5

Surrogate Recoveries (%)

%SS:	99				
Comments					

* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor.

surrogate diluted out of range or surrogate coelutes with another peak.



QC SUMMARY REPORT FOR SW8081A

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 62623

WorkOrder: 1110897

EPA Method: SW8081A

Extraction: SW3510C

Spiked Sample ID: N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Aldrin	N/A	0.50	N/A	N/A	N/A	116	112	3.31	N/A	N/A	70 - 130	30
g-BHC	N/A	0.50	N/A	N/A	N/A	110	112	2.01	N/A	N/A	70 - 130	30
p,p-DDT	N/A	1.25	N/A	N/A	N/A	99.1	99.3	0.199	N/A	N/A	70 - 130	30
Dieldrin	N/A	1.25	N/A	N/A	N/A	118	119	1.01	N/A	N/A	70 - 130	30
Endrin	N/A	1.25	N/A	N/A	N/A	122	123	0.760	N/A	N/A	70 - 130	30
Heptachlor	N/A	0.50	N/A	N/A	N/A	125	130	3.55	N/A	N/A	70 - 130	30
%SS:	N/A	1.25	N/A	N/A	N/A	95	96	0.362	N/A	N/A	70 - 130	30
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE												

BATCH 62623 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1110897-003A	10/27/11 1:21 PM	11/09/11	11/10/11 2:58 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount\ Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Other Sampling Events

January 25, 2012



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Analytical Report

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: Discharge 1-25-12; Levin Rich Terminal "Municiple"	Date Sampled: 01/25/12
		Date Received: 01/26/12
	Client Contact: Helen Mawhinney	Date Reported: 02/02/12
	Client P.O.: #TL22438	Date Completed: 02/02/12

WorkOrder: 1201696

February 02, 2012

Dear Helen:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **Discharge 1-25-12; Levin Rich Terminal "Municipl**
- 2) QC data for the above sample, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing
McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1201696

ClientCode: ETS

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☒ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
510-385-4308 FAX: 510-522-6259

Email: HMawhinneyETS@aol.com; james.jimenez
cc:
PO: #TL22438
ProjectNo: Discharge 1-25-12; Levin Rich Terminal
"Municiple Discharge"

Bill to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
james.jimenez@sbcglobal.net

Requested TAT: 5 days

Date Received: 01/26/2012

Date Printed: 01/26/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1201696-001	SW-1 through SW7	Water	1/25/2012 12:01	<input type="checkbox"/>	B	A	E	F	D	D	C					

Test Legend:

1	1664A_W	2	602_W	3	BOD_W	4	METALSMS_W	5	PH_W
6	SC-120_1_W	7	TSS_W	8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **Environmental Technical Services**

Date and Time Received: **1/26/2012 11:29:07 AM**

Project Name: **Discharge 1-25-12; Levin Rich Terminal "Municipal Discharge"**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **1201696**

Matrix: **Water**

Carrier: **Client Drop-In**

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 10.2°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Comments:



1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: Discharge 1-25-12; Levin Rich Terminal "Municiple"	Date Sampled: 01/25/12
		Date Received: 01/26/12
	Client Contact: Helen Mawhinney	Date Extracted 01/30/12
	Client P.O.: #TL22438	Date Analyzed 01/31/12

Hexane Extractable Material without Silica Gel Clean Up*

Extraction method: E1664A

Analytical methods: E1664A

Work Order: 1201696

[illegible]

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	5.0	mg/L
	S	NA	NA


* water samples and all TCLP & SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in mg/wipe, product/oil/non-aqueous liquid samples in mg/L.

DF = dilution factor (may be raised to dilute target analyte or matrix interference).

%SS = Percent Recovery of Surrogate Standard

surrogate diluted out of range

DHS ELAP Certification 1644

 Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: Discharge 1-25-12; Levin Rich Terminal "Municiple"	Date Sampled: 01/25/12
		Date Received: 01/26/12
	Client Contact: Helen Mawhinney	Date Extracted: 01/28/12
	Client P.O.: #TL22438	Date Analyzed: 01/28/12

Aromatic VOCs by P&T and GC-PID (602 Target List)*

Extraction Method: E602

Analytical Method: E602

Work Order: 1201696

Lab ID	1201696-001A				Reporting Limit for DF = 1	
Client ID	SW-1 through SW7					
Matrix	W					
DF	1				S	W

Compound	Concentration				ug/kg	µg/L
Benzene	ND				NA	0.5
Toluene	ND				NA	0.5
Ethylbenzene	ND				NA	0.5
Xylenes, Total	ND				NA	0.5

Surrogate Recoveries (%)

%SS:	107				
Comments					

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.



1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: Discharge 1-25-12; Levin Rich Terminal "Municiple	Date Sampled: 01/25/12
		Date Received: 01/26/12
	Client Contact: Helen Mawhinney	Date Extracted: 01/26/12-01/31/12
	Client P.O.: #TL22438	Date Analyzed: 01/31/12

Biochemical Oxygen Demand (BOD)*

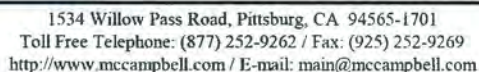
Analytical Method: SM5210B

Work Order: 1201696

[illegible]

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	4.0 mg/L	
	S	NA	

* water samples are reported in mg/L.





1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

pH*		Work Order: 1201696
Analytical Method: SM4500H+B		

Method Accuracy and Reporting Units	W	±0.05, pH units @ °C	
	S	NA	

DF = Dilution Factor



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: Discharge 1-25-12; Levin Rich Terminal "Municiple"	Date Sampled: 01/25/12
		Date Received: 01/26/12
	Client Contact: Helen Mawhinney	Date Extracted: 01/26/12
	Client P.O.: #TL22438	Date Analyzed: 01/26/12

Specific Conductivity*

Analytical Method: E120.1

Work Order: 1201696

Lab ID	Client ID	Matrix	Specific Conductivity	DF	Comments
1201696-001D	SW-1 through SW7	W	614 @ 25.0°C	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit

W

10 µmhos/cm @ 25°C

S

NA

DF = Dilution Factor



1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com



QC SUMMARY REPORT FOR E1664A

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64268

WorkOrder: 1201696

EPA Method: E1664A		Extraction: E1664A					Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
HEM	N/A	20.83	N/A	N/A	N/A	96.2	N/A	N/A	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 64268 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201696-001B	01/25/12 12:01 PM	01/30/12	01/31/12 4:20 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SM5210B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64459

WorkOrder: 1201696

EPA Method: SM5210B		Extraction: SM5210B				Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
BOD	N/A	198	N/A	N/A	N/A	99	N/A	N/A	80 - 120
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 64459 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201696-001E	01/25/12 12:01 PM	01/26/12	01/31/12 6:00 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR EPA 602

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64315

WorkOrder: 1201696

EPA Method: E602		Extraction: E602				Spiked Sample ID: 1201654-002C			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
MTBE	ND	10	104	92.3	11.6	104	70 - 130	20	70 - 130
Benzene	ND	10	106	100	5.63	105	70 - 130	20	70 - 130
Toluene	ND	10	105	101	4.38	103	70 - 130	20	70 - 130
Ethylbenzene	ND	10	106	103	3.33	104	70 - 130	20	70 - 130
%SS:	106	10	94	94	0	95	70 - 130	20	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 64315 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201696-001A	01/25/12 12:01 PM	01/28/12	01/28/12 5:55 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64321

WorkOrder: 1201696

EPA Method: E200.8		Extraction: E200.8				Spiked Sample ID: 1201556-006A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Copper	24	50	95.4	95.6	0.140	96.1	70 - 130	20	85 - 115
Lead	ND	50	94.3	95.2	0.950	89.3	70 - 130	20	85 - 115
Nickel	0.85	50	95.2	95.6	0.412	94.9	70 - 130	20	85 - 115
Zinc	5.2	500	97.3	97.2	0.0611	97.2	70 - 130	20	85 - 115
%SS:	106	750	107	107	0	98	70 - 130	20	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 64321 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
I201696-001F	01/25/12 12:01 PM	01/26/12	01/27/12 11:59 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount\ Spiked)$; $RPD = 100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

**McC Campbell Analytical, Inc.***"When Quality Counts"*1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com**QC SUMMARY REPORT FOR WET CHEMISTRY TESTS****Test Method: SM4500H+B (pH)****Matrix: W****WorkOrder: 1201696**

Method Name: SM4500H+B			Units: \pm , pH units @ °C			BatchID: 64307
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	Precision	Acceptance Criteria
1201696-001D	7.59 @ 23.4°C	1	7.60 @ 23.4°C	1	0.01	0.05

BATCH 64307 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201696-001D	01/25/12 12:01 PM	01/26/12	01/26/12 7:30 PM				

Test Method: E120.1 (Specific Conductivity)**Matrix: W****WorkOrder: 1201696**

Method Name: E120.1			Units: μ mhos/cm @ 25°C			BatchID: 64345
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1201696-001D	614 @ 25.0°C	1	620 @ 25.0°C	1	1.01	<2

BATCH 64345 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201696-001D	01/25/12 12:01 PM	01/26/12	01/26/12 9:00 PM				

Test Method: SM2540D (TSS)**Matrix: W****WorkOrder: 1201696**

Method Name: SM2540D			Units: mg/L			BatchID: 64441
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1201696-001C	43.0	5	43.0	5	0	<15

BATCH 64441 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201696-001C	01/25/12 12:01 PM	01/26/12	01/26/12 6:45 PM				

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

 $RPD = 100 * (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.

Other Sampling Events

March 14, 2012



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Analytical Report

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT SW-7 March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Reported: 03/23/12
	Client P.O.:	Date Completed: 03/23/12

WorkOrder: 1203530

March 23, 2012

Dear Helen:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **LRT SW-7 March 2012**,
- 2) QC data for the above sample, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.



McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) ☒

☐ Check if sample is effluent and "J" flag is required

Report To: Environmental Test Sys Bill To: same

Company: Helen Mackinnon

1548 JACOB AVE

SAN JOSE, CA 95118

E-Mail:

Tele: (831) 236-9221

Fax: ()

Project #: LRT SW-7 MARCH 2012 Project Name: same

Project Location: LRT 402, Wright Ave, Richmond, CA

Sampler Signature: Helen Mackinnon

Analysis Request

Other

Comments

**Indicate here if these samples are potentially dangerous to handle:

Filter sample for DISSOLVED metals analysis

755
49PH m

SAMPLE ID	LOCATION Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED			
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other
SW-7	SW-7	3/14/12	1:36			X								
SW-2														
SW-1														
SW-3														
SW-4														
SW-5														
SPARK SW-1														
N. PARK SW-1														

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By: Helen Mackinnon Date: 3/14/12 Time: 4:59 PM Received By: ETS Eric

Relinquished By: Helen Mackinnon Date: 3/14/12 Time: 5:00 PM Received By: ETS Eric

Relinquished By: Helen Mackinnon Date: 3/15/12 Time: 1:10 PM Received By: J. C. C.

ICEA 5.6
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB

COMMENTS:

SW-7 Not Discharging
AL, CU, VN, ZN, FE, PB

VOAS O&G METALS OTHER
PRESERVATION pH<2

*Container for SW-7
was not collected

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1203530

ClientCode: ETS

☐ WaterTrax

☐ WriteOn

☐ EDF

☐ Excel

☐ Fax

☒ Email

☐ HardCopy

☐ ThirdParty

☐ J-flag

Report to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
510-385-4308 FAX: 510-522-6259

Email: HMawhinneyETS@aol.com; james.jimenez
cc:
PO:
ProjectNo: LRT SW-7 March 2012

Bill to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118

Requested TAT:

5 days

Date Received: 03/15/2012

Date Printed: 03/15/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1203530-001	SW-7	Water	3/14/2012 1:36	<input type="checkbox"/>	A	D	G	E	F	G	B	C	I	H		

Test Legend:

1	5520B_W
6	METALSMS_W
11	

2	608_W
7	SC_W
12	

3	ALKIMET_W
8	TOC_W

4	COD_W
9	TPH_W

5	GAS8260_W
10	TSS_W

The following SampleID: 001F contains testgroup.

Prepared by: Zoraida Cortez

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Environmental Technical Services**

Date and Time Received: **3/15/2012 5:26:03 PM**

Project Name: **LRT SW-7 March 2012**

Checklist completed and reviewed by: **Zoraida Cortez**

WorkOrder N°: **1203530** Matrix: Water

Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

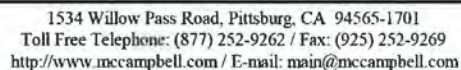
Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 5.6°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Comments: Container for 8270 was not received.





Environmental Technical Services

1548 Jacob Avenue

San Jose, CA 95118

Client Project ID: LRT SW-7 March
2012

Client Contact: Helen Mawhinney

Client P.O.:

Date Sampled: 03/14/12

Date Received: 03/15/12

Date Extracted: 03/15/12

Date Analyzed: 03/23/12

Organochlorine Pesticides (608 Basic Target List) and PCBs*

Extraction Method: E608

Analytical Method: E608

Work Order: 1203530

Lab ID	1203530-001D				Reporting Limit for DF =1	
Client ID	SW-7					
Matrix	W				S	W
DF	1					
Compound	Concentration				µg/kg	µg/L
Aldrin	ND				NA	0.005
a-BHC	ND				NA	0.01
b-BHC	ND				NA	0.005
d-BHC	ND				NA	0.005
g-BHC	ND				NA	0.02
Chlordane (Technical)	ND				NA	0.1
a-Chlordane	ND				NA	0.05
g-Chlordane	ND				NA	0.05
p,p-DDD	ND				NA	0.01
p,p-DDE	ND				NA	0.01
p,p-DDT	ND				NA	0.01
Dieldrin	ND				NA	0.01
Endosulfan I	ND				NA	0.02
Endosulfan II	ND				NA	0.01
Endosulfan sulfate	ND				NA	0.05
Endrin	ND				NA	0.01
Endrin aldehyde	ND				NA	0.01
Endrin ketone	ND				NA	0.05
Heptachlor	ND				NA	0.01
Heptachlor epoxide	ND				NA	0.01
Hexachlorobenzene	ND				NA	0.5
Hexachlorocyclopentadiene	ND				NA	1.0
Methoxychlor	ND				NA	0.1
Toxaphene	ND				NA	0.5
Aroclor1016	ND				NA	0.5
Aroclor1221	ND				NA	0.5
Aroclor1232	ND				NA	0.5
Aroclor1242	ND				NA	0.5
Aroclor1248	ND				NA	0.5
Aroclor1254	ND				NA	0.5
Aroclor1260	ND				NA	0.5
PCBs, total	ND				NA	0.5

Surrogate Recoveries (%)

%SS:

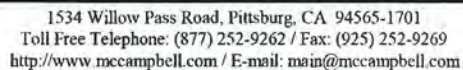
84

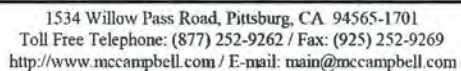
Comments

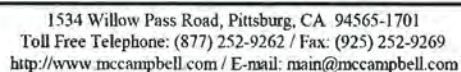
* water samples in µg/L; reporting limit may change due to variable water sample volume.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.







Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT SW-7 March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Extracted 03/16/12
	Client P.O.:	Date Analyzed 03/16/12

TPH(g) by Purge & Trap and GC/MS*

Extraction method: SW5030B

Analytical methods: SW8260B

Work Order: 1203530

[illegible]

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

DHS ELAP Certification 1644

AR Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services

1548 Jacob Avenue

San Jose, CA 95118

Client Project ID: LRT SW-7 March 2012

Client Contact: Helen Mawhinney

Client P.O.:

Date Sampled: 03/14/12

Date Received: 03/15/12

Date Extracted: 03/16/12

Date Analyzed: 03/16/12

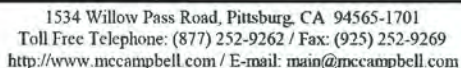
MTBE and BTEX by GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1203530

Lab ID	1203530-001F				Reporting Limit for DF = 1	
Client ID	SW-7					
Matrix	W					
DF	1					
					S	W
Compound	Concentration				ug/kg	ug/L
Benzene	ND				NA	0.5
Ethylbenzene	ND				NA	0.5
Methyl-t-butyl ether (MTBE)	ND				NA	0.5
Toluene	ND				NA	0.5
Xylenes, Total	ND				NA	0.5
Surrogate Recoveries (%)						
%SS1:	107					
%SS2:	110					
Comments						
<p>* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.</p> <p>ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.</p> <p># surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.</p> <p>%SS = Percent Recovery of Surrogate Standard DF = Dilution Factor</p>						



Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT SW-7 March 2012		Date Sampled: 03/14/12		
			Date Received: 03/15/12		
	Client Contact: Helen Mawhinney		Date Extracted: 03/16/12		
	Client P.O.:		Date Analyzed: 03/16/12		
Specific Conductivity*					
Analytical Method: SM2510B			Work Order: 1203530		
Lab ID	Client ID	Matrix	Specific Conductivity	DF	Comments
1203530-001B	SW-7	W	35.0 @ 25.0°C	1	
Reporting Limit for DF = 1; ND means not detected at or above the reporting limit		W	10 µmhos/cm @ 25°C		
		S	NA		
DF = Dilution Factor					

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT SW-7 March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Extracted: 03/21/12
	Client P.O.:	Date Analyzed: 03/21/12

Total Organic Carbon (TOC) reported as NPOC*

Analytical Method: E415.3

Work Order: 1203530

[illegible]

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.3 mg/L	
	S	NA	

* water samples are reported in mg/L. Settleable solids and floatable matter are excluded from analysis per E415.3. TOC is reported as NPOC.

TOC = Total Organic Carbon; NPOC = Non-Purgeable Organic Carbon; DOC = Dissolved Organic Carbon; POC = Purgeable Organic Carbon; IC = Inorganic Carbon; TC = Total Carbon.

DF = Dilution Factor

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: LRT SW-7 March 2012	Date Sampled: 03/14/12
		Date Received: 03/15/12
	Client Contact: Helen Mawhinney	Date Extracted 03/15/12
	Client P.O.:	Date Analyzed 03/21/12

Total Extractable Petroleum Hydrocarbons*

Extraction method: SW3510C

Analytical methods: SW8015B

Work Order: 1203530

[illegible]

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	250	µg/L
	S	NA	NA

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

DHS ELAP Certification 1644

 Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mccampbell.com> / E-mail: main@mccampbell.com

Environmental Technical Services

1548 Jacob Avenue

San Jose, CA 95118

Client Project ID: LRT SW-7 March
2012

Client Contact: Helen Mawhinney

Client P.O.:

Date Sampled: 03/14/12

Date Received: 03/15/12

Date Extracted: 03/20/12

Date Analyzed: 03/20/12

Total Suspended Solids*

Analytical Method: SM2540D

Work Order: 1203530

Lab ID	Client ID	Matrix	Total Suspended Solids	DF	Comments
1203530-001H	SW-7	W	1.80	1	

Reporting Limit for DF = 1; ND means not detected at or above the
reporting limit

W

1.0 mg/L

S

NA

* water samples reported in mg/L.

DF = Dilution Factor



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701

Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269

http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SM5520B/F

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65781

WorkOrder: 1203530

EPA Method: SM5520B/F

Extraction: SM5520B/F

Spiked Sample ID: N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TOG	N/A	20.83	N/A	N/A	N/A	104	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 65781 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203530-001A	03/14/12 1:36 AM	03/19/12	03/20/12 3:40 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.


% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR E410.4

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65984

WorkOrder: 1203530

EPA Method: SM5220D

Extraction: SM5220D

Spiked Sample ID: N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
COD	N/A	400	N/A	N/A	N/A	102	N/A	N/A	90 - 110

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 65984 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203530-001E	03/14/12 1:36 AM	03/21/12	03/21/12 4:41 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.


% Recovery = $100 * (MS - Sample) / (Amount\ Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR E608

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65723

WorkOrder: 1203530

EPA Method: E608

Extraction: E608

Spiked Sample ID: N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Aldrin	N/A	0.50	N/A	N/A	N/A	107	N/A	N/A	70 - 130
g-BHC	N/A	0.50	N/A	N/A	N/A	94.2	N/A	N/A	70 - 130
p,p-DDT	N/A	1.25	N/A	N/A	N/A	84.7	N/A	N/A	70 - 130
Dieldrin	N/A	1.25	N/A	N/A	N/A	120	N/A	N/A	70 - 130
Endrin	N/A	1.25	N/A	N/A	N/A	100	N/A	N/A	70 - 130
Heptachlor	N/A	0.50	N/A	N/A	N/A	89.3	N/A	N/A	70 - 130
%SS:	N/A	1.25	N/A	N/A	N/A	112	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 65723 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203530-001D	03/14/12 1:36 AM	03/15/12	03/23/12 3:53 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR E200.7

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65820

WorkOrder: 1203530

EPA Method: E200.7

Extraction: E200.7

Spiked Sample ID: 1203314-010A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Aluminum	ND	1000	96.1	95.7	0.356	90.7	70 - 130	20	85 - 115
Iron	ND	1000	98	94.9	3.20	100	70 - 130	20	85 - 115
%SS:	100	750	105	101	3.71	99	70 - 130	30	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 65820 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203530-001G	03/14/12 1:36 AM	03/15/12	03/20/12 5:40 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.


% Recovery = $100 \cdot (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$; $\text{RPD} = 100 \cdot (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



QC SUMMARY REPORT FOR E410.4

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65984

WorkOrder: 1203530

EPA Method: SM5220D

Extraction: SM5220D

Spiked Sample ID: 1203478-002C

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
COD	20	400	98.8	97.6	1.20	102	80 - 120	20	90 - 110

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 65984 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203530-001E	03/14/12 1:36 AM	03/21/12	03/21/12 4:41 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.


% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65886

WorkOrder: 1203530

EPA Method: SW8260B		Extraction: SW5030B					Spiked Sample ID: 1203530-001F		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Benzene	ND	10	98.5	95.7	2.91	104	70 - 130	20	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	102	106	3.53	101	70 - 130	20	70 - 130
Toluene	ND	10	87.5	95.9	9.13	100	70 - 130	20	70 - 130
%SS1:	107	25	110	112	1.95	113	70 - 130	20	70 - 130
%SS2:	110	25	105	105	0	109	70 - 130	20	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 65886 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203530-001F	03/14/12 1:36 AM	03/16/12	03/16/12 4:14 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount\ Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification 1644

 QA/QC Officer



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65778

WorkOrder: 1203530

EPA Method: SW8015B

Extraction: SW3510C

Spiked Sample ID: N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	122	N/A	N/A	70 - 130
%SS:	N/A	625	N/A	N/A	N/A	88	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 65778 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203530-0011	03/14/12 1:36 AM	03/15/12	03/21/12 5:08 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.


% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65811

WorkOrder: 1203530

EPA Method: E200.8

Extraction: E200.8

Spiked Sample ID: 1203314-010A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Copper	87	50	89.1	91.3	0.830	96	70 - 130	20	70 - 130
Lead	ND	50	101	100	0.239	100	70 - 130	20	70 - 130
Vanadium	1.7	50	98	99	1.02	97.9	70 - 130	20	70 - 130
Zinc	7.2	500	93.8	94.6	0.836	96.1	70 - 130	20	70 - 130
%SS:	104	750	103	102	1.03	102	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 65811 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203530-001G	03/14/12 1:36 AM	03/15/12	03/17/12 6:24 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.


% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer



QC SUMMARY REPORT FOR WET CHEMISTRY TESTS

Test Method: **SM2510B (Specific Conductivity)**

Matrix: **W**

WorkOrder: **1203530**

Method Name: SM2510B			Units: $\mu\text{mhos/cm}$ @ 25°C			BatchID: 65858
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1203530-001B	35.0 @ 25.0°C	1	35.1 @ 25.0°C	1	0.343	<2

BATCH 65858 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203530-001B	03/14/12 1:36 AM	03/16/12	03/16/12 1:40 PM				

Test Method: **SM2540D (TSS)**

Matrix: **W**

WorkOrder: **1203530**

Method Name: SM2540D			Units: mg/L			BatchID: 65976
Lab ID	Sample	DF	Dup / Ser. Dil.	DF	% RPD	Acceptance Criteria (%)
1203530-001H	1.80	1	2.00	2	10.5	<15

BATCH 65976 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203530-001H	03/14/12 1:36 AM	03/20/12	03/20/12 2:15 PM				

Dup = Duplicate; Ser. Dil. = Serial Dilution; MS = Matrix Spike; RD = Relative Difference; RPD = Relative Percent Deviation.

Precision = Absolute Value (Sample - Duplicate)

$\text{RPD} = 100 * (\text{Sample} - \text{Duplicate}) / [(\text{Sample} + \text{Duplicate}) / 2]$

%RPD is calculated using results of up to 10 significant figures, however the reported results are rounded to 2 or 3 significant figures. Therefore there may be a slight discrepancy between the %RPD displayed above and %RPD calculated using the reported results. MAI considers %RPD based upon more significant figures to be more accurate.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR E415.3

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65946

WorkOrder: 1203530

EPA Method: E415.3

Extraction: E415.3

Spiked Sample ID: 1203539-001B

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TOC	1.7	50	112	113	0.431	114	70 - 130	20	80 - 120

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 65946 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203530-001C	03/14/12 1:36 AM	03/21/12	03/21/12 1:03 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.


% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS ELAP Certification 1644

 QA/QC Officer

Other Sampling Events

May 9, 2012



McC Campbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mcccampbell.com> / E-mail: main@mcccampbell.com

Analytical Report

Environmental Technical Services 1548 Jacob Avenue San Jose, CA 95118	Client Project ID: #120509 EPA LEVN; LRT 120509 EPA	Date Sampled: 05/09/12
		Date Received: 05/09/12
	Client Contact: Helen Mawhinney	Date Reported: 05/14/12
	Client P.O.:	Date Completed: 05/10/12

WorkOrder: 1205285

May 14, 2012

Dear Helen:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **#120509 EPA LEVN; LRT 120509 EPA,**
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.



McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1205285

ClientCode: ETS

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☒ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
510-385-4308 FAX: 510-522-6259

Email: HMawhinneyETS@aol.com; james.jimenez
cc:
PO:
ProjectNo: #120509 EPA LEVN; LRT 120509 EPA

Bill to:

Helen Mawhinney
Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118

Requested TAT:

5 days

Date Received: 05/09/2012

Date Printed: 05/09/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1205285-001	SW-6	Water	5/9/2012 10:01	<input type="checkbox"/>	A											
1205285-002	SW-7	Water	5/9/2012 10:49	<input type="checkbox"/>	A											

Test Legend:

1	8081PCB_W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Environmental Technical Services**

Date and Time Received: **5/9/2012 4:34:31 PM**

Project Name: **#120509 EPA LEVN; LRT 120509 EPA**

Login Reviewed by: **Melissa Valles**

WorkOrder N°: **1205285**

Matrix: Water

Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 4.1°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Comments:

**McC Campbell Analytical, Inc.***"When Quality Counts"*1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Environmental Technical Services

1548 Jacob Avenue

San Jose, CA 95118

Client Project ID: #120509 EPA LEVN;
LRT 120509 EPA

Client Contact: Helen Mawhinney

Client P.O.:

Date Sampled: 05/09/12

Date Received: 05/09/12

Date Extracted: 05/09/12

Date Analyzed: 05/10/12

Organochlorine Pesticides by GC-ECD (8080 Basic Target List) + PCBs*

Extraction Method: SW3510C

Analytical Method: SW8081A/8082

Work Order: 1205285

Lab ID	1205285-001A	1205285-002A			Reporting Limit for DF =1	
Client ID	SW-6	SW-7				
Matrix	W	W			S	W
DF	1	5				
Compound	Concentration				µg/kg	µg/L
Aldrin	ND	ND<0.025			NA	0.005
a-BHC	ND	ND<0.050			NA	0.01
b-BHC	ND	ND<0.025			NA	0.005
d-BHC	ND	ND<0.025			NA	0.005
g-BHC	ND	ND<0.10			NA	0.02
Chlordane (Technical)	ND	ND<0.50			NA	0.1
a-Chlordane	ND	ND<0.25			NA	0.05
g-Chlordane	ND	ND<0.25			NA	0.05
p,p-DDD	0.021	0.066			NA	0.01
p,p-DDE	0.037	0.11			NA	0.01
p,p-DDT	0.044	0.091			NA	0.01
Dieldrin	0.013	ND<0.050			NA	0.01
Endosulfan I	ND	ND<0.10			NA	0.02
Endosulfan II	ND	ND<0.10			NA	0.02
Endosulfan sulfate	ND	ND<0.25			NA	0.05
Endrin	ND	ND<0.050			NA	0.01
Endrin aldehyde	ND	ND<0.25			NA	0.05
Endrin ketone	ND	ND<0.25			NA	0.05
Heptachlor	ND	ND<0.050			NA	0.01
Heptachlor epoxide	ND	ND<0.050			NA	0.01
Hexachlorobenzene	ND	ND<2.5			NA	0.5
Hexachlorocyclopentadiene	ND	ND<5.0			NA	1.0
Methoxychlor	ND	ND<0.50			NA	0.1
Toxaphene	ND	ND<2.5			NA	0.5
Aroclor1016	ND	ND<2.5			NA	0.5
Aroclor1221	ND	ND<2.5			NA	0.5
Aroclor1232	ND	ND<2.5			NA	0.5
Aroclor1242	ND	ND<2.5			NA	0.5
Aroclor1248	ND	ND<2.5			NA	0.5
Aroclor1254	ND	ND<2.5			NA	0.5
Aroclor1260	ND	ND<2.5			NA	0.5
PCBs, total	ND	ND<2.5			NA	0.5

Surrogate Recoveries (%)

%SS:	98	95		
Comments	b1	b1		

* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor.

surrogate diluted out of range or surrogate coelutes with another peak.

b1) aqueous sample that contains greater than ~1 vol. % sediment



QC SUMMARY REPORT FOR SW8081A/8082

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 67417

WorkOrder: 1205285

EPA Method: SW8081A/8082

Extraction: SW3510C

Spiked Sample ID: N/A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Aldrin	N/A	0.50	N/A	N/A	N/A	73.1	N/A	N/A	70 - 130
g-BHC	N/A	0.50	N/A	N/A	N/A	86.7	N/A	N/A	70 - 130
p,p-DDT	N/A	1.25	N/A	N/A	N/A	72.1	N/A	N/A	70 - 130
Dieldrin	N/A	1.25	N/A	N/A	N/A	94.6	N/A	N/A	70 - 130
Endrin	N/A	1.25	N/A	N/A	N/A	94.6	N/A	N/A	70 - 130
Heptachlor	N/A	0.50	N/A	N/A	N/A	89.5	N/A	N/A	70 - 130
%SS:	N/A	1.25	N/A	N/A	N/A	95	N/A	N/A	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE									

BATCH 67417 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1205285-001A	05/09/12 10:01 AM	05/09/12	05/10/12 6:29 AM	1205285-002A	05/09/12 10:49 AM	05/09/12	05/10/12 7:26 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount\ Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

